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Senate Hearings

Before the Committee on Appropriations

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Department of Defense Appropriation...

Department of Defense Appropriations

Fiscal Year 1997

104th CONGRESS, SECOND SESSION

H.R. 3610/S. 1894

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DEPARTMENT OF DEFENSE
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S. HRG. 104–756

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

H.R. 3610/S. 1894

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1997, AND FOR OTHER PURPOSES

Department of Defense
Nondepartmental witnesses

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, MARCH 6, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:50 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, and Shelby.

DEPARTMENT OF DEFENSE

COMPTROLLER

STATEMENT OF DR. JOHN HAMRE, COMPTROLLER

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. I apologize to Dr. Hamre and apologize to all of you. We did have another meeting. We are working on matters for the full committee but we do welcome you here this morning, Dr. Hamre. This is a commencement of our work on the 1997 bill. We do not have the Department's detailed budget proposals yet, and we do need them, obviously. As we consider the issues relating to supplemental and reprogramming requests, we have to understand the context of the overall budget for next year. I think we would all agree with that.

Later today, we are going to act on the Bosnia supplemental request. We look forward to discussing that issue with you here today, if we may.

Senator Inouye cannot join us today. We will ask that you respond to his questions, if you will, in writing. He is not able to come today.

I might say I am disappointed. We are apparently headed for a conflict on the level of the 1997 Defense request. We will have to see how that structures in terms of modernization, but it is not time for that argument now. I do hope that you are able to give us some further explanation of the Ballistic Missile Defense Program restructuring.

We are going to address a series of these issues through the hearings that we will hold this year and we look to you to give us an overview of the budget. I know you have faced your own challenges within your Department, so we are not criticizing your efforts, Dr. Hamre.

We have noticed with interest that you do propose to fund a 3-percent pay raise for military and civilian workers and there is $1.1 billion provided for the contingency operations in Southwest Asia and Bosnia. Those will be our priorities, also. We do have to support the people who are in the field.

We are looking at a lot of these modernization initiatives. I do not want to mention any one of them to indicate that there is any priority, as far as I am personally concerned, but I do think the rate of replacement of aging systems is a total priority after meeting our obligations to the men and women in uniform. So, we will want to work with you throughout the course of the budget cycle and appreciate your being willing to lead off here.

Senator Cochran, do you have any comments?

Senator COCHRAN. No, sir, Mr. Chairman. We appreciate very much, though, the cooperation or Dr. Hamre with our committee and look forward to discussing the details of the budget request with him.

Senator STEVENS. Proceed any way you would like to proceed.

Dr. HAMRE. Thank you, very much, Mr. Chairman, and Senator Cochran. I very much appreciate the opportunity to comment and the honor to be invited.

I think it is very risky on the part of the committee to invite the Comptroller to come up and lead off. I mean, we do not normally get out of the building without adult supervision. [Laughter.]

We moonlight as anesthesiologists because we have that effect. I hope I do not put everybody to sleep here this morning. [Laughter.]

Senator STEVENS. I told Dr. Perry, he questioned about our policy. My policy is to bring him last, you know. We want to get all the answers, the people have given him information, before we ask him.

Dr. HAMRE. That is why it is called dessert. [Laughter.]

DEFENSE AS COMPONENT OF TOTAL FEDERAL SPENDING

What I would like to do, if I may—I do not have a prepared statement—I would like to provide a briefing which shows background information on the budget. It is not my role to substitute for the Secretary on policy issues. I would like to show you how those policy decisions were implemented inside this budget, more than anything to provide a context for the hearings that you will be having.

So, if I may, I would like to give a series——

Senator STEVENS. I hope more of our members come but I do think that is what we want. We would like to know what is the financial structure behind the policy that we are going to hear later on.

Dr. HAMRE. Yes, sir, and how the decisions that were made are reflected in this budget.

FEDERAL BUDGET OUTLAYS

[Percent distribution]

	Fiscal year—		
	1990 ($1.25 trillion)	1997 ($1.64 trillion)	2002 ($1.88 trillion)
Mandatory	45.2	52.3	57.4
Interest	14.7	14.6	11.9
Defense	24.0	15.9	14.8
Nondefense	16.1	17.3	15.9

I am going to start briefly with an overview discussion of this budget in the context of the total Federal budget. The budget itself isn't going to be coming up until the 18th of March and so it is a little unusual for the defense budget to be up here apart from the rest of the budget, and so let me just give a couple of brief charts to explain where we are relative to the budget.

There are some very important issues inside of this budget which is why I think it is important to start here. I am showing you 1990. This year's budget, fiscal year 1997, and then the end of this period.

So, fiscal year 2002 is the budget that reaches a zero deficit. Now, it is very important to look at the trends among the four big categories. The blue in this chart is mandatory spending, and as you can see, the budget that we are going to submit, the mandatory grows to 57.4 percent roughly over this period. I will have nothing to say about the interest payments.

I would like to talk about the two wedges that are standing out. These, of course, are the discretionary part, the part that is subject to the Appropriations Committee. Note, this is—the green in this chart is the defense budget and note that back in 1990 it was 24 percent of Federal outlays. All Federal outlays, we were 24 percent of that. This budget, we are down to 16 percent and we will drop another percentage point, to 14.8 percent, over this period.

Very interesting change, however, on the nondefense side of the equation. Back in 1990 they were 16 percent of the budget, then grew 1 percentage point up to this year and there are proposals for deep reductions between now and the year 2002.

DEFENSE, NONDEFENSE AND MANDATORY

[Percent real changes in outlays]

	Percent change—		
	1990–97	1997–2002	1990–2002
Defense	−28.9	−5.7	−32.9
Domestic	+17.7	−6.0	+10.7
Mandatory	+26.5	+12.4	+42.2

You will see this a little better on the next chart where I am showing you the percentage changes against the 1990, so up until this year, defense spending over the last 6 years is down nearly 30 percent in real terms.

At the same time, domestic spending is up 18 percent from the same period. This is what has been going on over the last 6 years.

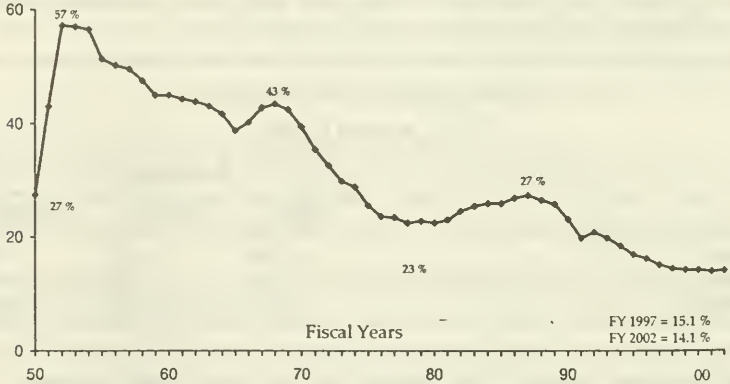
From over the next 6 years, from 1997 through 2002, defense spending will go down just modestly and this is in outlays. As you will see in the budget later, the administration is proposing a 6-percent reduction in nondefense spending and discretionary.

When we end the period, of course, entitlements will be up 42 percent, discretionary defense spending will be down a total of 33 percent over this 12 year period, and nondefense will be up about 11 percent.

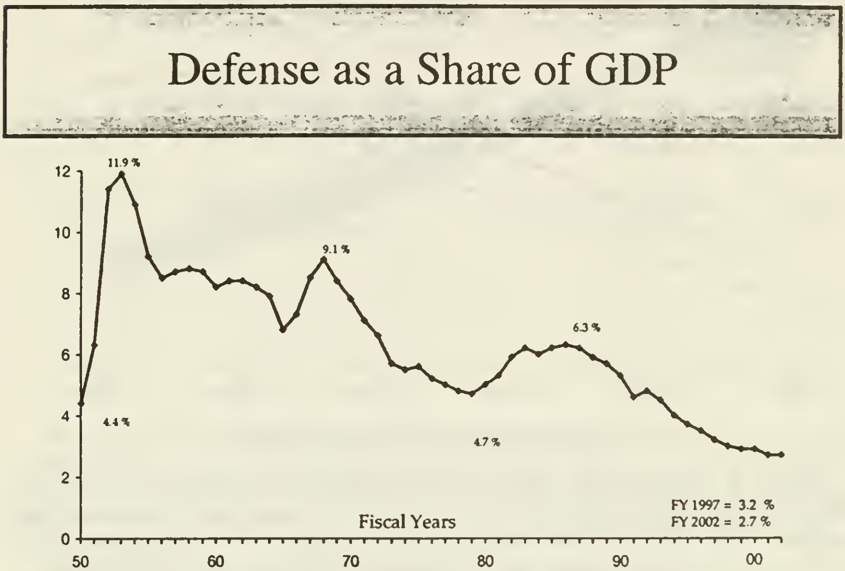
Now, I need to put that in context because there is going to be a lot of debate about it this year in the negotiations between the President and the Congress over reaching a zero deficit. There was a general agreement to cut about $297 billion in outlays out of the discretionary spending from the fiscal year 1996–2002 baseline; $297 billion. In the budget that is going to be submitted, much of the $297 billion came out of defense, but these reductions are already reflected in DOD plans. Indeed the President allowed DOD to keep all but $16 billion of a projected $46 billion in inflation savings from fiscal year 1997–2002. So this year's budget supports an addition of $30 billion in defense programs for fiscal year 1997–2002.

We know we are going to be in the crosshairs because of that. A lot of people are going to be scrutinizing that very carefully. I feel that we were fortunate the President made a strong commitment to keep our spending up during this period but we also know there is going to be a robust debate all spring and summer over that.

Defense as a Share of Federal Outlays

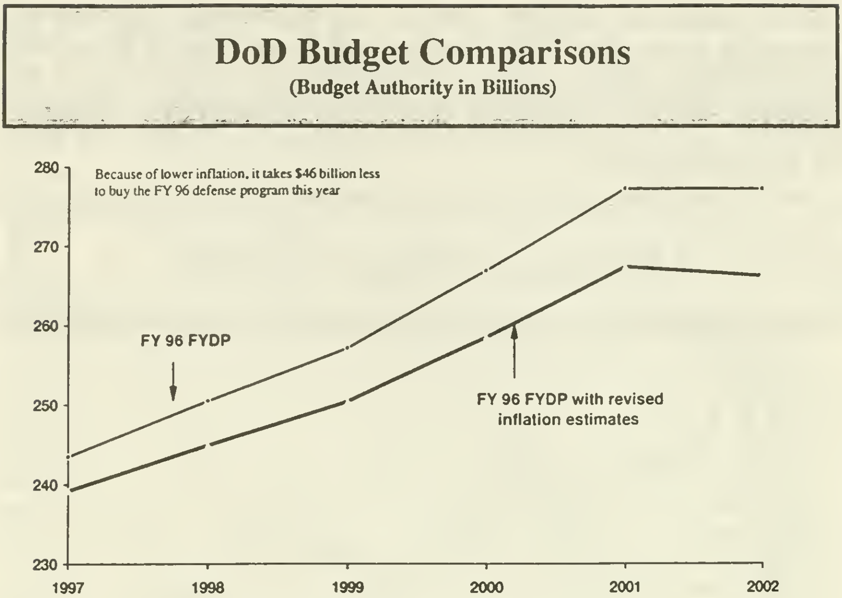


As a percent of Federal outlays, and this is showing you the time-trend over—since 1950. Back in 1952, we were at 60 percent of all Federal outlays. This was obviously the Korean war. But since this period, there has been a very steady decline. We are at 15 percent now, as I said, and we are down to 14 percent by 2002, the end of the period.


Defense as a Share of GDP

This is showing you as a percent of the gross domestic product and in that sense, it is showing you the general cost of defense in our society. People from the left will say, “That is the amount of drag on the economy by having a defense budget.” People on the right will say, “That is our investment in our future, our security.” Either way, these are very small percents. It is only 3.2 percent today of our gross domestic product and it is going to drop to 2.7 percent. It has not been that low since 1938.

So, we are at a historical low rate for defense spending as a percent of our economy.

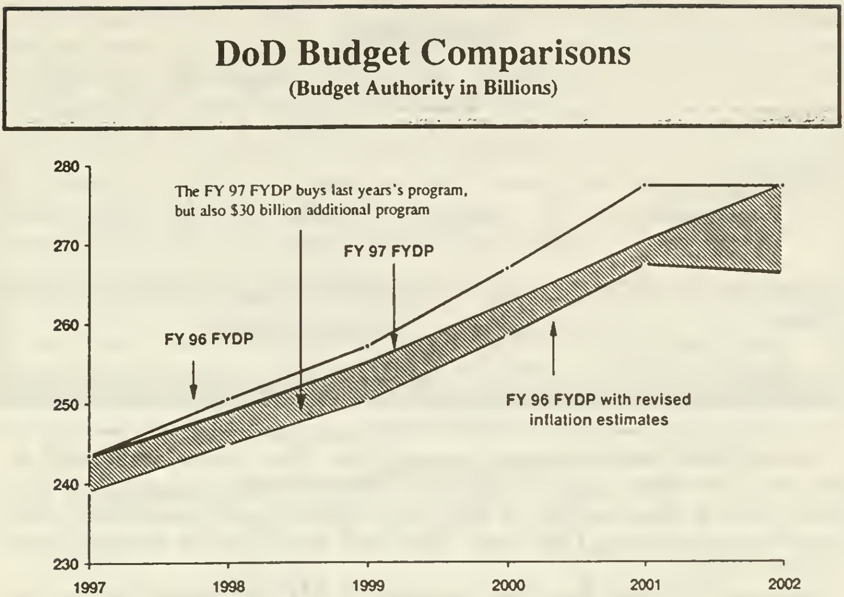

DoD Budget Comparisons
(Budget Authority in Billions)

Because of lower inflation, it takes $46 billion less to buy the FY 96 defense program this year

DEFENSE BUDGET COMPARISONS

About 2 weeks ago, there were some press releases about the President giving us $13 billion. I need to put that in context and explain this. This upper line was our program last year, our 1996 future year defense program [FYDP] for 1997 and the out-years.

In January, we formally got the new calculation of inflation, and the inflation estimates came down about 1 percentage point across the board. Now, it only takes this lower line to buy that program. In other words, we could, for $46 billion less, buy the same program. So, we entered into a discussion with OMB about what would be our top line for fiscal year 1997 and out, fiscal year 1997 FYDP, and their proposal initially was to take away $46 billion because it bought exactly the same program as last year, and we do it under the new pricing assumptions. What happened, we spent a fair amount of time with them on this.



We actually got this line in between this green line and what we were able to—we were able to get back $30 billion. So, the program that we had last year which we could buy for this amount, we actually were to get another 30 billion of purchasing power on top of that program.

So, this program actually is a little more robust than our budget would have been, and it is largely because of the inflation adjustments. Now, the question we will ask, Mr. Chairman, is how we led those inflation adjustments. Has there ever been a period of time over 6 years when the inflation rate has been 2.2 percent? And the answer is no.

I do not think there has ever been a point in time over 6 years with an inflation rate that low.

Senator STEVENS. Well, my question is a little different. Have you ever had a situation in defense where the inflation rate was less? Even today, it is not less in terms of defense procurement.

Dr. HAMRE. No, sir; I think these are historically unprecedented rates if they were to occur over a 6-year period of time.

Senator STEVENS. It is an estimate, is it not?

Dr. HAMRE. Yes, sir.

Senator STEVENS. It has not occurred yet, has it?

Dr. HAMRE. No, sir; it is absolutely an estimate. Let me show what those numbers look like. This is at the very back at the set of charts that I gave you.

INFLATION SAVINGS

	1995	1996	1997	1998	1999	2000	2001	2002	1997–2002
	Percent								
GDP deflator:									
President's budget:									
February 1995	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
January 1996	1.9	2.0	2.2	2.2	2.3	2.2	2.2	2.2	
	Dollars in billions								
Savings:									
Impact of revised rates			−$4.3	−$5.5	−$6.7	−$8.3	−$9.9	−$11.0	−$45.7
President allowed DOD to reapply			+4.3	+3.9	+4.6	+3.8	+2.9	+11.0	+30.5

These were the economic assumptions that were embedded in last year's budget, about 3 percent. That is much closer to the real discount rate that existed at the time. There really has been a drop in inflation between 1995 and 1996 and that drop is nearly 1 percentage point.

Senator STEVENS. But that is national. My understanding is that in terms of Defense procurement, Defense salaries, it was greater than that.

Dr. HAMRE. Sir, what we do is we actually—this is a composite. We actually use three basic deflators. We use a pay deflator, which is calibrated against private sector wage rates. We have a fuel deflator because fuel is much more volatile. And then we use not the CPI, which is a kind of a common measure for consumers, but we use a purchase deflator. It is called the general implicit price deflator. It is based on a modified version of that where we come up with this. It is closer to every industry.

Senator STEVENS. But again, my friend, you have defense actual expenditure rate and the inflation in that in 1995, I am told, is much greater than 1.9 percent. But you are asking us to rely upon the national average in projecting your expenditures for 1997 through 2002; is that not correct?

Dr. HAMRE. Yes, sir; all I would say is, this is not something we generate inside DOD. This is something that is given to us, and we are directed to use and it has been this way for 20 years.

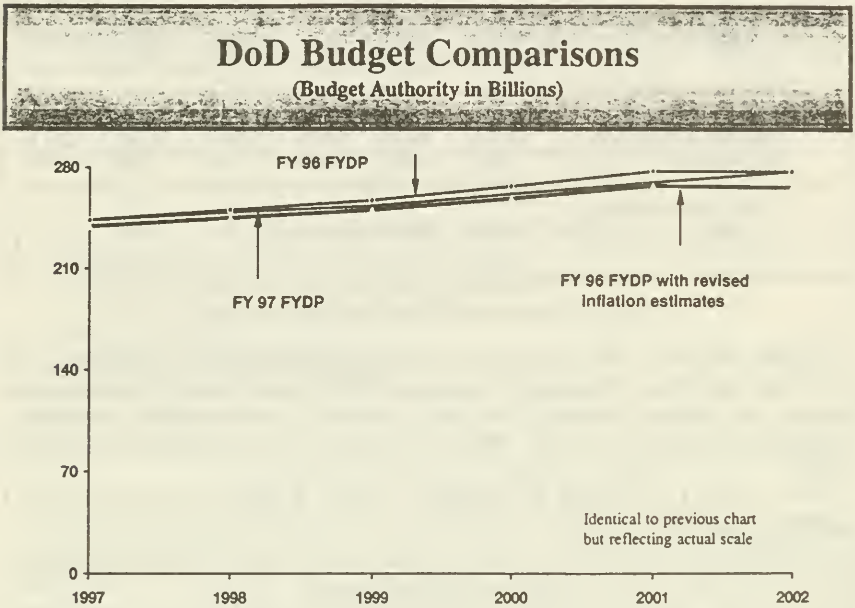
Senator STEVENS. But your predecessors used to generate your actual expenditures and show us what the inflation rate was in your expenditures.

Dr. HAMRE. I will try to find out what it is and get back to you, sir. In most cases, these things are relatively close to actual, and then this becomes the basis for the future because they are so low. That is part of the reason we get 2.2 percent as a forecast.

Let me come back to you and say what are the actuals as best I can.

Senator STEVENS. I really wish you would because I think we are going to find ourselves in a position very similar to what we used to get into with regard to foreign exchange. We had an estimate of what the exchange rate was going to be. It went off the wall but we still had money based upon the old conservative approach to exchange rates, and you have got a very conservative inflation concept and you are going to take those savings out of the budget. But in terms of defense, they are not there today.

Dr. HAMRE. Sir, I owe you a response on that 1.9 percent, how close that is to what we actually experienced, and I will do that. I do want to point out these are very low rates, and obviously, if they are not right, if inflation is higher, we are going to have to come back and to get an adjustment from OMB.



So, as I said, this is as it ended up. We got this funding stream using those economic assumptions which gave us about $30 billion more in purchasing power. The $13 billion that was in the press was from 1998 through the year 2001. We also got $4.3 billion that we kept in 1997 and we have not spent the $12 billion or so that we have in 2002. We will do that in our future program.

DOD TOPLINE

[Dollars in billions]

	Fiscal year—					
	1997	1998	1999	2000	2001	2002
Budget authority:						
Total DOD military (051)	$242.6	$248.1	$254.3	$261.7	$269.6	$276.6
DOE and other	$11.8	$10.7	$9.8	$8.8	$10.0	$11.3
Total national defense (050)	$254.4	$258.8	$264.1	$270.5	$279.6	$287.9
Percent real growth (DOD)	−6.0	−.2	....	+.5	+.6	+.2
Outlays:						
Total DOD military (051)	$247.5	$243.9	$246.5	$253.9	$256.6	$264.9
DOE and other	$11.2	$10.9	$10.0	$9.0	$9.4	$10.6
Total national defense (050)	$258.7	$254.8	$256.5	$262.9	$266.0	$275.5

REAL GROWTH IN DEFENSE SPENDING

These, sir, are our nominal levels for spending for defense, for just the defense function. In this FYDP, the one number that jumps out more than any is the 6 percent real decline. This year compared to 1996, we are down 6 percent in real terms, 1996 to 1997.

Now, may I put that in context. I have a backup chart which I need to just use briefly.

DOD PERCENT REAL GROWTH

	Fiscal year—				
	1994	1995	1997	1997	1998
Fiscal year:					
1994 budget	−5.0	−3.0	−5.1	−5.0	....
1995 budget	....	−.9	−5.9	−4.0	−0.2
1996 budget	....	....	−5.3	−4.1	−.1
1997 budget	....	....	−3.7	−6.0	−.2

Back in 1994 when we were building the bottom-up review, this was the real decline every year that was forecast and 1997 was the last year. As you can see, we were at that stage, we were level, so we were programming at 5 percent real decline in fiscal year 1997. That has bubbled around a little bit as the base changed.

Last year, we were forecasting a 4.1-percent real decline but because Congress appropriated $7 billion more, it raised the starting point and it made it a deeper real decline in fiscal year 1997, and so we are minus 6 percentage points, real decline in 1997 over 1996.

DOD TOPLINE

[Dollars in billions]

	Fiscal year—					
	1997	1998	1999	2000	2001	2002
Budget authority:						
Fiscal year 1997 topline	$243.4	$248.9	$255.0	$262.4	$270.3	$277.3
Percent real growth	−6.1	−.2	....	+.5	+.6	+.2
Outlays:						
Fiscal year 1997 topline	$248.3	$244.8	$247.5	$255.0	$258.6	$265.6
Percent real growth	−5.3	−3.8	−1.3	+.6	−1.0	.3

The rest of the program, as you can see, we have very modest real growth in the out-years but it is essentially a flat budget.

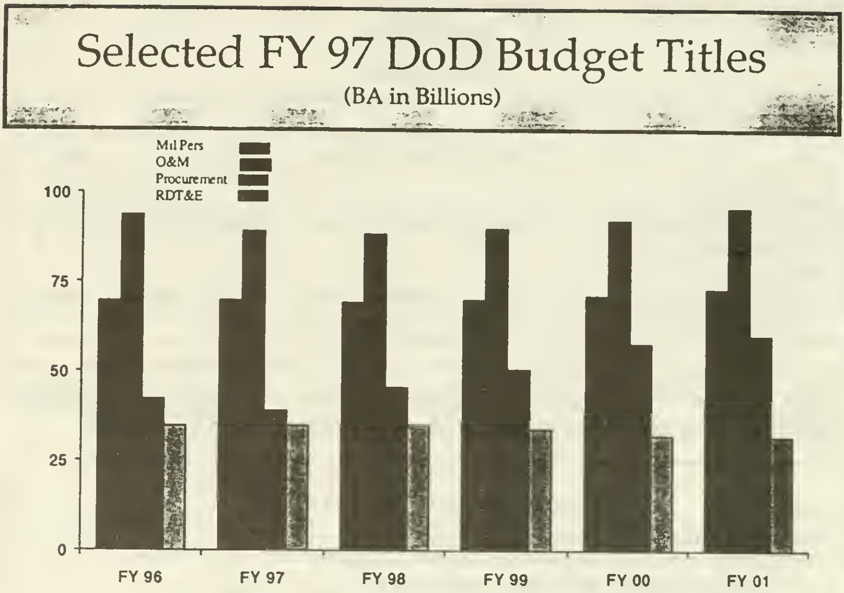
Fiscal Year 1997 Budget Themes

Continue builddown to Bottom-up Review levels
  —Military personnel drawdown largely complete
  —Civilian personnel drawdown continues
Protects readiness
  —Includes funds for contingencies
Provides Quality-of-Life initiatives
Sustains balanced, but austere modernization program
Realizes BRAC savings

TRENDS BY APPROPRIATIONS TITLE

I am going to now shift to talk about—and this really organizes the charts that follow the major elements and that also follows the priorities, in essence, that we have. The Secretary basically said continue the builddown; don't break anything. Make sure we are not breaking anything during the builddown, and so I will show you the personnel elements of that.

His highest priority is protecting readiness and we resourced that as the first priority in, so I will show you that element along with quality of life, which we include in the readiness element, and then finally, we have what we characterize as a balanced but a very austere modernization program and one person's austerity is another person's insufficient funding and we will go through that and I will show you at least the elements of it.



Selected FY 97 DoD Budget Titles

(BA in Billions)

Mr. Chairman, you asked what were the broad philosophies underlying this budget and how are they reflected in our budget? Let me use this chart to basically summarize it.

Let me first begin with personnel because that is where we begin. First we had to complete the drawdown and that largely shows up in personnel costs. And I will show you in a chart in a moment that we are 97 percent complete in the personnel drawdown. We are 97 percent complete here in 1997 and in 1998 to 1999, there is a small incline to this mil pers line which reflects the cost-of-living adjustments.

We have the legal cost-of-living adjustment, 3 percent, through this FYDP period. So, that is why that is very stable and that becomes the base. Once you get that part down, then you have to resource that base.

Protect readiness, and that is reflected in the O&M line here. As you can see, there is a modest increase in O&M funding over this period. Also embedded in here, of course, is civilian pay. Our civilian pay shows up largely in O&M. Our civilian pay is a 3-percent pay raise in 1997 but then, 1½ percent below DCI in the out-years, so that was the federalwide policy.

There is, from 1996 to 1997, about a $4 billion reduction in O&M. Now, of that $4 billion, 80 percent of it is made up of four elements. We, in this line, we have all of the costs of our contingencies. We repriced it to show all the costs of contingencies. Here, we only have $1.1 billion, so there is about $1.5 billion difference in O&M from that $1 billion in O&M.

We also reledgered a number of items, subsistence in kind. Back in 1992, they were up—up until 1992, they were always in O&M. I mean, in mil pers, we tried an experiment to move them into O&M, so that is Subsistence in Kind and we could be centrally managed. We found we needed to really put that back, so it is the same. We manage it together with BAS, so it is back in mil pers' account. So, $700 million of the reduction was in that account.

There are about $450 or $500 million reduction in the cost of the Defense Health Program. There is no change in benefits but we have impressive goals coming from managed care in the Defense Health Program. And then there is about $500 million from the cost of the forestructure reductions.

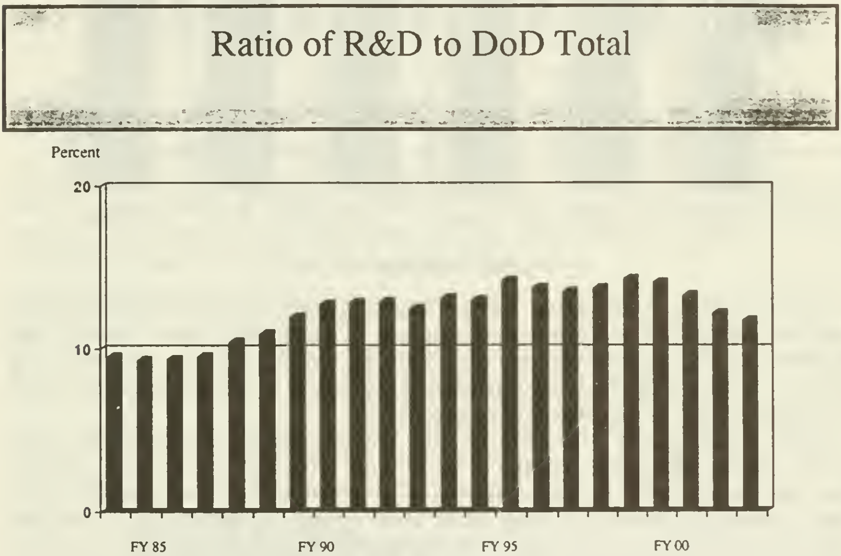
Senator STEVENS. You are projecting an increase in personnel costs in there?

Dr. HAMRE. Yes, sir; but it is largely going to be an increase in nonpersonnel because personnel is coming down through this period. What we are basically—we have fairly robust funding for readiness and I will show you that in the next chart, or a few charts down.

R&D FUNDING

This right-most bar here is R&D funding and R&D funding is when you take care of the major programs and you sort of overfund a lot of this. We have some real declines in our R&D funding.

Let me show you another backup chart. I am not sure I have this in your package.


Ratio of R&D to DoD Total

So, we are declining in R&D funding as a percent of the total DOD budget in the out-years but it is at a fairly high historical rate. It is well over the nominal 10 percent rates that we had in the 1970's and the 1980's.

Senator SHELBY. It is declining but at what percentage?

Dr. HAMRE. Right now, we are at 14 percent and it goes down to about 12 percent.

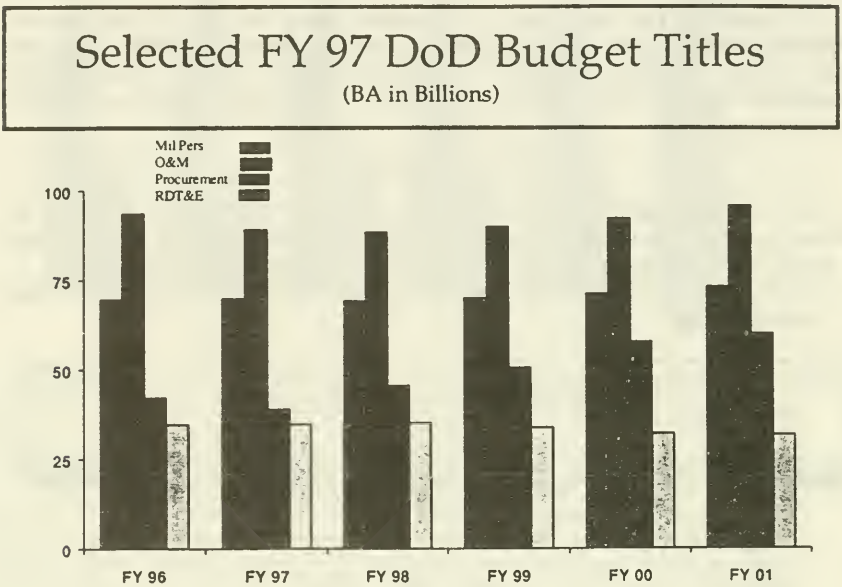
Senator SHELBY. But it is declining in different areas, is it not?.

Dr. HAMRE. Yes, sir; but we have——

Senator SHELBY. Excuse me, Mr. Chairman.

Senator STEVENS. That is all right.

Dr. HAMRE. What we have done in previous years, we put zero real growth for a very large definition of tech base and that was 6.1, 6.2, 6.3a. This year, we only put zero real growth and froze it for 6.1. We did not for 6.2 and 6.3a so there are some declines in those accounts. The primary reason for this drawdown, however, is we are ramping up on things like the F–22 and the big R&D eaters.



PROCUREMENT

So, as I said, I think we have—this is relatively static with minor decline as major systems are ending. This third-from-the-left bar represents the procurement and this is where all the growth that occurs in the top line and internal savings is going into procurement and that is 40 percent real growth.

Now, I will show you this in the third part of the briefing. Last year, I said that the 1996 column was the low point and that is not the case; 1997 is lower again and we are down about $4.5 billion. I would like to explain that once again, the part of what you said, Mr. Chairman, in your opening statement and your concern about our modernization rates and whether they are adequate, so let me very quickly—I am going to first talk about personnel and then I am going to talk about readiness, then I am going to talk about modernization.

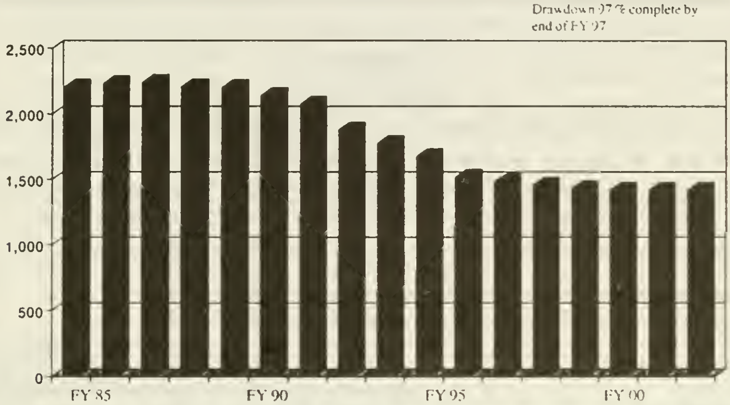
Senator STEVENS. While we are there, can you give us just a general statement in terms of the average age of basic systems—tanks, ships, airplanes—the basic systems we are trying to modernize. What is their average age?

Dr. HAMRE. Sir, that chart is downstream, and if you would indulge me, I would like to wait and I will spend a fair amount of time talking about it.

Senator STEVENS. All right.

Dr. HAMRE. That previous bar chart is simply these numbers in graph, and so there is nothing other than what I said here.

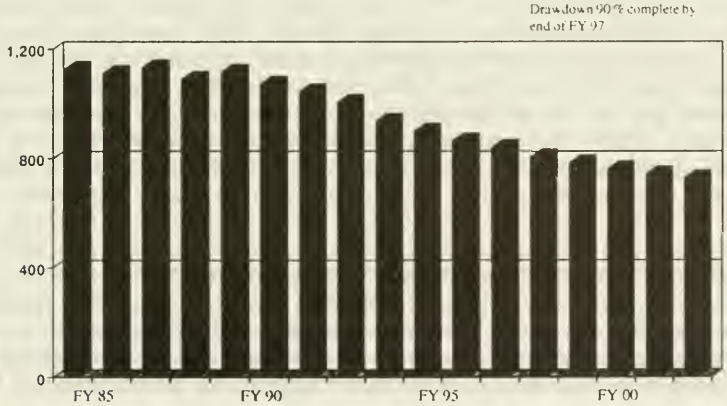
Military Personnel End Strengths
(in thousands)



PERSONNEL REDUCTIONS

Let me first talk about the personnel levels. Of course, we are dropping down from our high point, which is about 2.2 million. And we go down to 1.4 million. We will be 97 percent complete when we get through this fiscal year. So we are basically done with the military side of the drawdown after this year.

Civilian Personnel End Strengths
(in thousands)



The civilian drawdown is not as far along. We did not start as quickly, and the Secretary increased the program reductions. So when we are in fiscal year 1997, we are only 90 percent complete.

Senator SHELBY. What is the hold up, John?

Dr. HAMRE. We just started later, sir. It bubbles around because of the underlying details, but it averages about 4 percent a year in reduction, and we have to do this. I mean, we have to get these costs out. Part of this is privatization, because it is no longer—the force structure is now at the bottom. And so this is really coming from base closures, from privatization, and this sort of thing.

PERSONNEL

[End strength in thousands]

	Fiscal year—			Change	Goal
	1995	1996	1997		
Active military:					
Army	509	495	495		475–495
Navy	435	425	407	−18	394
Marine corps	175	174	174		174
Air Force	400	388	381	−7	375
Total active	1,519	1,482	1,457	−25	1,418
Selected Reserves	946	931	901	−30	893
Civilians	865	841	807	−34	728

Mr. Chairman, I would like to spend a minute on this, largely to talk about this issue and what does that mean. The Army, of course, believes it needs to have 495,000 personnel in order to support this force structure, and as you can see we are now postulating a range, and this is really in the year 2000, a range between 475 and 495. But I need to explain how this happened and why it is there.

Back in the summer, during the program review, we had a fairly robust discussion about whether the Army's modernization program was adequate, and it was the Secretary's view it was not, that it was insufficient. The Secretary provided additional resources to the Army from the top line in DOD and gave it to the Army for modernization for 1997 and 1998, and a little bit in 1999. But the Secretary said you have got to fix this problem yourself. You have got to come up with savings inside your account to fix it yourself, and I am prepared to live with a smaller Army if that is what it takes to get a stronger modernization program. And so we put a marker down that we would drop as many as 10,000 people.

Now, we did not change the force structure, and we did not change the O&M funding for that force structure.

Senator SHELBY. What would 20,000 do, as far as the numbers and money is concerned. That is what you are getting at.

Dr. HAMRE. I think it is about $1.1 billion a year. But there are more people in the Army with their fingers on the keyboard than there are on triggers. I mean, we have got to get at this administrative side of the Army, and that is what this is. This is to put a challenge.

Senator SHELBY. But that is also true in the civilian part of defense, is it not?

Dr. HAMRE. Yes, sir.

Senator SHELBY. As opposed to the bureaucracy, which is so heavy. Yet in R&D there are fewer people doing the work.

Dr. HAMRE. There was a major discussion yesterday in front of the House Appropriations Committee on that issue. Your procurement is down 70 percent but your personnel that do procurement is not down very much, and have we done enough streamlining in the civilian acquisition side? Those are very important issues for us, but that is what this represents now. This is not a 1997 issue. In 1997 we are at 495,000. This is a 1999, year 2000 issue, and the Army, they are making very good progress actually, but nonetheless we are going to have to get a stronger program. And, hopefully, it is by getting streamlines on the administrative side.

Civilian strength reductions

[September 1989–1999]

Remaining	98,000
Involuntary separations	21,100
Buyouts	76,000
Priority placements/voluntary separations	163,900
Total	359,000

CIVILIAN END STRENGTH

One last thing, and this is really to say thank you to the Congress. This is our civilian end-strength reductions. Altogether we will cut out about 360,000 civilians. We have cut out to date about 260,000, and of that number we have only had 21,000 where we have had to involuntarily RIF them. And so it is about only 7 to 8 percent where we have had to physically force people out of their jobs. We were able to do that because of the special buyout authority that Congress gave us to be able to get people out in a humane way, and it has been successful. We would never have been able to do that without help from Congress, so we say thank you for that. And as a result, we have not broken things yet.

Now, we still have another 100,000 to go, and that is why it is very important for us to continue to have the buyout authority. I know the domestic side is confronting this issue, as well.

Senator STEVENS. Any idea what it costs on an average to buy out?

Dr. HAMRE. I think the limit is $25,000, I believe. I do not know what the average is. May I say there is one of the problems with the buyout authority cap at $25,000 is it is not much of an inducement for mid-grade individuals, GS–15's, for example. I have a supergrade organization because I have one or two people that have to interact with the entire Army, for example, on procurement, and so I have a GS–15 routinely that does this sort of thing.

My GS–15's, they have maybe 18 years of service, and they are 12 years away from retirement; $25,000 inducement to retire is not an inducement for somebody like that to retire. It is very hard to get at that senior action officer grade lower than the supervisory grade with these buyout authorities. So if we are going to tackle that part, and it is something you have to watch so you do not have grade creep, because this works, but it really works largely two ends of the spectrum. It works for lower graded individuals, and then it works for people who are working past a retirement age who decide, well I will punch out. This is helping me make that decision. And that tends to be how it is being used now.

We probably need to think about some other tools. I am not sure what they are. I am not a personnel type.

Senator STEVENS. One of the tools is to give vouchers or credits against future taxes if they are going to go work somewhere else, give them a transition period and a tax incentive concept. You ought to think about that, John, because those people are obviously below the retirement age and they are taking buyouts.

Dr. HAMRE. Yes, sir.

Senator STEVENS. And they need a transition from Government to the private sector. So they ought to have—it is not a tax-free, but a tax reduction, and then it declines.

Dr. HAMRE. Sir, there are probably—I know we have had several discussions about this, but again, I am not a personnelist. I have not studied it. One of the things, I wonder whether or not we could have a transition window for people who are in the old civil service rules over the FERS where the portability of FERS might help people make that. A lot of people feel trapped because they are 18 years into a civil service system and they are not in FERS with its portability, and if there would be a way to convert so that people had the current value of their civil service retirement but under a FERS regime, then they do not kind of feel like they have golden handcuffs holding them to the job.

Senator STEVENS. Another important thing about FERS is you know the savings. Social security is not portable, the pension is not portable, what is portable is the savings. I do not know how you create that.

Dr. HAMRE. And whether it is possible to create some of the extra value of the civil service into a savings that would be portable, I do not know. I am not a personnelist. But we probably do need to get at that.

Senator STEVENS. You can cash out the civil service. You take your money out of the SRS. You can take your money out.

Dr. HAMRE. Yes, sir.

Senator STEVENS. But you lose your retirement base.

Dr. HAMRE. Yes, sir; and whereas—again, I am well beyond my competence to talk about that, but can I come back to you?

Senator STEVENS. Yes; I am chairman of the other committee. I would be happy to talk about that. I know a little bit about it. I think the only way you are going to get to it is by getting a transition that allows—and maybe we can let you borrow from CSRS, but I have to tell you you have to arm wrestle with the Treasury because the money is not there.

FORCE STRUCTURE

	Cold war base 1990	Base force	1997	Projected goal
Land forces:				
Army active divisions	18	12	10	10
Reserve component brigades	57	34	[1] 42	[1] 42
Marine Corps (3 active/1 Reserve)	4	4	4	4
Navy:				
Battle force ships	546	430	357	346
Aircraft carriers:				
Active	15	13	11	11
Reserve	1	....	1	1
Navy carrier wings:				
Active	13	11	10	10
Reserve	2	2	1	1
Air Force:				
Active fighter wings	24	15.3	13	13
Reserve fighter wings	12	11.3	7	7

[1] Includes 15 enhanced brigades (equivalent to 5+ divisions).

FORCE STRUCTURE

Dr. HAMRE. There is virtually no change in our force structure from what we were saying before. This is a little up in the air. As you know, there are the ongoing discussions between the Army and the Army National Guard as to some long-term trends. This number is a little higher.

Senator SHELBY. Elaborate. You said long-term trends, a little discussion between the Army and the Guard.

Dr. HAMRE. The Army and the Guard have had a series of discussions about how the structure of the Guard should look in the context of the total force, and whether these ought to be maneuver divisions in the old sense of maneuver divisions, or whether they ought to be more structured, supportive of combined arms operations in a deployed sense. It has been collaborative inside the Army community and inside the Army Guard, and I think they have made progress on that. We did not program any reductions because of those negotiations, and so we did not want there to be a budget pressure or an implied bias in the outcome of that. So that is a resource that our previous level the Navy shifts.

This is a little bit higher than we were showing you 1 year ago, and that is because we are currently programming to keep those ships in the service a little while longer. And so much of the Navy's activity with a very high op tempo is satisfying things, traditionally economic issues, like where we were around 1980, where frankly a frigate will do the job rather than aegis, and so there was a lot of impetus in holding on to that a little bit while longer, and we have done that.

PROTECTING READINESS—PRIORITY #1

Unbudgeted contingency operations are a major readiness risk in fiscal year 1996
- Contingency operations funded in fiscal year 1997
- Robust O&M funding continues
- Readiness intensively monitored/managed
- Quality of life being enhanced

READINESS AND CONTINGENCY OPERATIONS

Sir, I would like to now shift away from the force structure and personnel side and talk about readiness, and I would like at this point to talk about the Bosnian elements, because those are not funded right now. You have been extremely helpful in dealing with this, and so I would like to talk about the contingency operations in 1997, we have made a change in that area, and then a few brief charts on the other.

Fiscal year 1996 contingency operations incremental costs/financing

	In millions
Contingency Operations:	
Southwest Asia	$647.1
Guantanamo Bay	71.7
U.N. Mission in Haiti	89.4
Jordan Drawdown	51.0
Miscellaneous Other	10.8
Bosnia (IFOR and related operations)	1,948.1
Total fiscal year 1996 requirements	2,818.1
Financing:	
Fiscal year 1996 Appropriations	647.1
January 1996 reprogramming (Inflation savings)	991.0
Supplemental appropriations request	620.0
2nd reprogramming	(1)

[1] Remaining costs at time of submission.

Mr. Chairman, these are the costs for all of the operations in fiscal year 1996. Let me start by saying thank you to this committee for having been so helpful in giving us funding for the two operations in Southwest Asia, Southern Watch and Provide Comfort. Those elements were put in your appropriations bill last year, so those are totally funded. And we do not have that concern.

The rest of these elements were not in our original budget. Of course, we have wrapped up on Guantanamo, and those costs to get that fixed. The Jordan drawdown was the non-F–16 piece that was the more conventional equipment, that was last year, and this is simply to replenish those stocks, to pay it back.

Now, three of the four committees have approved the reprogramming. Your committee has given us the go ahead on reprogramming. You said $875 million rather than $991 million, and we are working with that. I know that, as you have said, Mr. Chairman, that you are looking at the supplemental, and from indications that you are likely to go above the request that we have for defense, that it could be higher than that. And that is extremely helpful because we have a piece down here of about $560 million we have not funded yet.

I mean, doing the math of all that is here we are $560 million short and we are going to have to send you another reprogramming of $560 million. So if you give us additional funding in the supplemental, it, of course, lowers that unfunded piece that we would need on the last reprogramming.

Now, there is one reason you may ask why have we not sent you the reprogramming yet. There are two primary reasons, and they are internal to the Department, and let me explain. One is we are still working and struggling with some of the costs on the Bosnian operation. The logistics contract, the commercial logistics contract, is turning out to be more expensive than we had originally forecast. The Secretary is concerned that we have adequate management controls on that contract, and so he has directed a special effort from Secretary Kaminski in that regard.

I think our original estimate was going to be about $150 million, and I think it is over $300 million right now, and so we are worried about that. And so I do not have an ultimate number for you right now.

Second, there is a raging debate inside the Department over how to pay for this last one, and may I explain? Going back to those inflation savings in theory we have about $3 billion of inflation savings in fiscal year 1996 because inflation was down in 1995 and in 1996. And as a comptroller, when I do this and I run these numbers through the computer, and clearly there are going to be inflation savings in these accounts, but an average program manager never gets a bill that says inflation on it, they just get bills. And when inflation is lower than we had forecast they are able to buy more things than they had in their original estimate. When inflation is higher, of course, they cannot buy as much.

Now, we come in and inflation is lower and we come to the top and we lower the amount that is available to them. But from the program manager's perspective, he has to cut real things. He or she has to cut real things. And so we have a big debate going on inside the building right now. Should we submit the second reprogramming to you as inflation savings, or should we actually show programs that we feel we have to cut?

I think the finance side of the House would prefer to do just inflation adjustments. The acquisition side of the House says I am cutting real things, let us be up front about that. And so we have not settled that.

Now, if you give us additional resources here with the supplemental, of course, it lowers that problem for us, and it will help us so we will not have to probably submit a reprogramming cuts project. And so I am hoping that we can decide this within the next couple of weeks.

Senator STEVENS. How much did you budget for contingency operations in 1996?

Dr. HAMRE. Sir, nothing.

Senator STEVENS. So you have almost $3 billion we have not absorbed?

Dr. HAMRE. Yes, sir; and you helped us with that in the appropriations bill. But we now have to come up with $2.2 billion.

Senator STEVENS. I know, but what I am getting to is we do that every year. It is an effective reduction in all the charts you have just shown me.

Dr. HAMRE. Yes, sir; and that is one change we have made with this year's budget. Let me actually go to that budget.

Senator STEVENS. You are telling me you are going to have funding in the budget for all contingencies?

Dr. HAMRE. Yes, sir; well, let me show you what I have in the budget.

Fiscal year 1997 budget major contingency operations

	In millions
Southwest Asia:	
Southern Watch	$449.7
Provide Comfort	140.4
Subtotal	590.1
Bosnia:	
IFOR ground operations	474.2
Deny Flight	66.3
Able Sentry (Macedonia)	1.2
Subtotal	541.7
Total	1,131.8

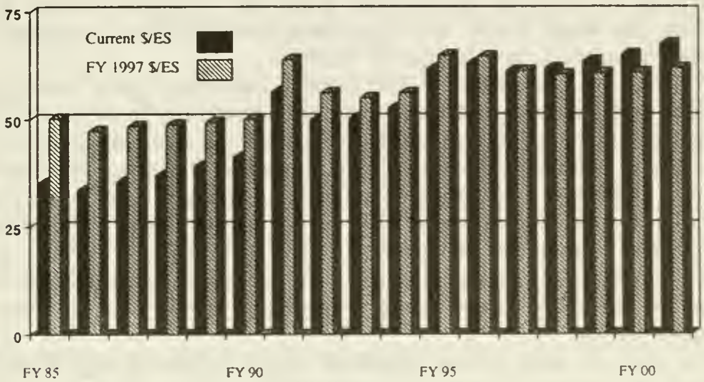
CONTINGENCY COSTS IN FISCAL YEAR 1997 BUDGET

This is what is in the 1997 budget request, $1.1 billion. And it is for the Southwest Asia piece, the Southern Watch and Provide Comfort, and we are carrying that at $590 million, and I have that every year of the FYDP. So it is in fiscal year 1997 and every succeeding year adjusted for inflation. The Bosnia piece that is $540 million is only in 1997. This assumes we are out of Bosnia by the 20th of December. If we are not out by the 20th of December for some reason, and this is largely exit costs because it is about a 2½ month withdrawal period, this is to maintain the force and to get the force out by the 20th of December, and it is $540 million.

So these two elements from a total of $1.1 billion, are in the 1997 budget request, and this is the first time we have done that. And it reflects the conversation that you and the Secretary had about having to get operations in the budget. And this is in every year of the FYDP. And the Secretary's policy is if we are going to undertake an operation and we know about it we are going to budget it, as opposed to just play a game of chicken with Congress every year and say it is not in our budget, you have got to help us.

O&M Dollars / Military End Strength

(Current & FY 97 Dollars)



READINESS/O&M FUNDING

Sir, let me just very briefly show you where we are on general readiness funding. And what I am showing is a very rough measure, and I am taking simply O&M dollars, and I am adjusting it for the change in end strength. And as you can see, the striped bar is in inflation adjusted terms. So I am removing the effective inflation.

The solid bar is in nominal dollars so it has inflation in, which is why it goes up over those years. And as you can see, it is only useful for showing relative funding over time. And what it shows you is that we are stable funding on readiness by this measure and we are consistently higher in the 1990's than we were in the 1980's when we had more money, and so we are putting a lot more money into readiness funding.

QUALITY OF LIFE INITIATIVES IN FISCAL YEAR 1997

Personnel Initiatives

3 percent military pay raise in fiscal year 1997 and 3.1 percent in out-years
Maintain health care and commissary benefits

Family Housing

Constructs/replaces 2,300 units and 13 support facilities
Improves 4,100 units
Provides $20 million in the Family Housing Improvement Fund for private sector housing ventures

Barracks

Constructs/modernizes 208 barracks (48,891 living spaces from fiscal year 1997–2001)

Community Facilities

Constructs/modernizes 5 physical fitness centers and brings child development centers to nearly 60 percent versus goal of 65 percent of requirements

QUALITY OF LIFE

Quality of life is, as you know, and this committee has been so supportive of the quality of life initiatives, we do have a 3-percent military pay raise in fiscal year 1997, and 3.1 percent in the outyears, which is the legal limit. Now, that could change if the legal limit dropped for other reasons or goes up. I mean, we are simply budgeting the legal limit. We maintain the health care benefit and commissary benefit, no change in those.

As you can see, we have 2,300 family housing units and upgrading 4,100, but I have got to say this is the second increment of that housing authority that you gave us where we are going to the private sector to basically be more efficient with housing. All the studies show, and it is our firm conviction, that we pay a 30-percent premium for housing doing it the Government way, that we could get 30 percent more for our money if we went to the private sector. And so what this is, this is leverage money to get the private sector involved in building these, and, hopefully, lower cost so we could build more units.

So our view is that these numbers could increase significantly if we could get private sector involvement in this program through this program.

Senator STEVENS. Is there not an inconsistency? You are telling us that inflation is going to be 2.2 percent over the period, and you are projecting a 3.1-percent pay raise?

Dr. HAMRE. Sir, the deflators, I do not have them on a slide. The pay deflator is higher than the general purchases deflator. And so we are budgeting what OMB told us to budget. Pay is higher. I think it is inconsistent, personally.

Senator SHELBY. You use the term deflator. But you mean the pay is inflating?

Dr. HAMRE. Both of them are inflating. One is called a deflator, but the purchasers——

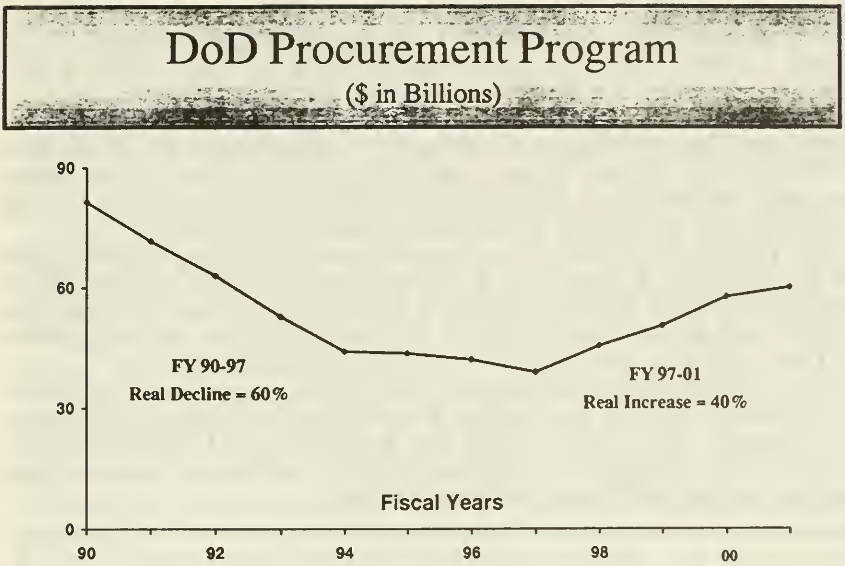
Senator SHELBY. But the reality——

Dr. HAMRE. Yes; the purchases deflator, which is an inflation adjuster, is lower than the pay one, which I find anomalous personally, but I am not an economist, so I am not exactly sure.

Senator STEVENS. I do not see how you can have that kind of a stable factor for defense. In procurement you have to be paying more per unit now that you do not have the competition you used to have in terms of the industrial base. There are so many things out there that you are paying more for than you used to pay for, I just do not think it balances.

But I also do not understand the assumption that if inflation stays down, theoretically, so do wage rates stay down.

Dr. HAMRE. Yes, sir; and it is, in my mind, anomalous that the general cost in the economy of 2.2 percent and wage rates would be 3 percent, but those are the numbers we were given, and we budgeted to them.



DOD PROCUREMENT PROGRAM

May I shift now and very briefly talk about procurement? Because I know that everyone is concerned about that this year. I am starting here at 1990. Of course, if I started at 1985 it would be way off the charts from this period.

From 1990 to 1997, that is a 60-percent real decline. A 60-percent decline from that level is a lot more than a 40-percent increase from that level. I mean, the nature of percentages is off of the base, and so this is a steep reduction in our purchases. We tried to hold this level and we have not made it. It slipped. This year it is down $4.6 billion compared to what we said it was going to be just last year.

Now, I need to explain that—let me be up front about it. The $4.6 billion, $2 billion of that reflects some change in the way we budget some elements in the intelligence accounts. I know that you have had several discussions with Director Deutch about some changes in that area, so there is no change in the underlying program. What was last year in procurement is now in R&D. So it just more closely reflects what is going on, and that was $2 billion, roughly, per year.

And so of the $4.6 billion, $2 billion of it simply is the same thing in a different account; $1.6 billion of it reflects the lower cost of inflation, if you believe these costs, and I know that you are skeptical of them.

Senator STEVENS. Well, in the overall DOD expenditures what do they look like in a graph like that? Do you have that graph?

Dr. HAMRE. The overall DOD expenditures for?

Senator STEVENS. For that period, for all accounts. This is just procurement. What is the overall DOD projected expenditures per year during that period?

Dr. HAMRE. Over this period?

Senator STEVENS. The whole time, from 1990.

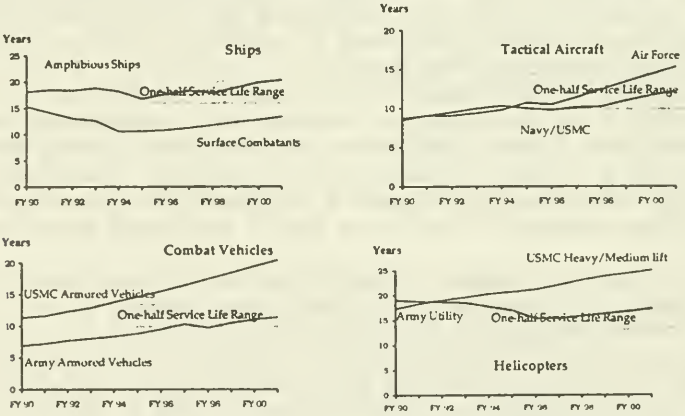
Dr. HAMRE. Sir, I apologize. I do not have that number in my head. I know what this line alone is, $300 billion, and so I will have to—maybe I am not understanding the question, sir.

Senator STEVENS. I was trying to compare the decline in procurement and the projected real increase in procurement to the decline in the overall defense budget over that period of time. If my memory does not fail me, I think what it really means is you are cutting a hell of a lot more from procurement than the overall.

Dr. HAMRE. Oh, yes, sir. Let me tell you, what the numbers tend to show is that if there is a 1-percent decline in the top line there tends to be a 2.5-percent decline in procurement. That has been the trend. And so we tend to have a 2.5 time swing to the adjustment to the top line in procurement. You are absolutely right.

Now, historically there has also been about a 2-percent uptick for every percent when the budget is growing. But that is absolutely the case. So, sir, what I would like to do is to, if I may, show you why the White House was willing to, why the President was willing to, give us the additional inflation savings.

Average Ages of Selected DoD Weapons



AVERAGE AGE OF SELECTED DOD WEAPONS

This goes back to the question we asked about average age. What I am showing you here is average age going back to 1990 out to 2002 in very broad categories, so this is ships, tactical aircraft, combat vehicles, helicopters, any time the trend the line is going up, it is a bad sign. The entire fleet is aging. Any time it is above the half-life, as it is for Marine Corps combat vehicles or Marine Corps heavy lift, it is a very serious problem. Because you are now on the slippery side of that slope, and to ever get back just to the average age costs an enormous investment.

So it is very important for us not only to get that line leveled out or going down, but also to keep it below the one-half of the service life. And as you can see, we are not doing very well. About the only one where we are below, frankly, is in surface combatants. And in every other case we are largely—we are also low on the armored vehicles, but it is drifting up.

Senator STEVENS. Now, the one-half service life, they tell me what I have been saying is wrong. I thought we had more ships that were in service over one-half their life. Is that not true?

Dr. HAMRE. Sir, what has happened is you see this dip in the service life from 1990 to 1994? You will remember from this previous chart that during those years there were very deep budget reductions. And so how in the world could there be deep budget reductions at the same time that the service life declined on ships?

Well, that is because we retired old ships. We retired the very oldest ships while we had a flow of newer ones coming in. So the average age actually declined during the period the budget was being cut. It is anomalous, but it is because you get rid of the old stuff first. But that is, frankly, about the only category. Most of the other cases, the lines are going up and are heading in the wrong direction. And in a few cases they go out and above their median range. That is a very adverse trend that is one you cannot sustain for long, because you cannot afford to buy it back. And that is when you enter that kind of death spiral of force structure and modernization. And so it is very important for us to fix this problem. And all we are doing, at best, is kind of staying the same. Sir, we would be glad to give you the backup data for it.

Senator STEVENS. Well, in the last—well, I see what you are saying. But we have retired the oldest ones?

Dr. HAMRE. We retired all of those old frigates, and some of the older destroyers, some of the old nuclear destroyers, for example. So it is coming down, but now we are heading back up. And this was why—frankly, this is why the President let us hold onto the $30 billion.

Senator STEVENS. I would like to see that chart. You bought a lot of ships in the period 1980 to 1986, I know that. But our rate of replacement has been down to—of ships alone has been down to about an average of four per year.

Dr. HAMRE. Yes, sir; I think that is right. I believe this is plotted, and I will double check, I think it is plotted when a ship enters service. And so you are looking at quite a lag between the time when we bought it and when it is entering service. But you can get rid of the old ones right away, and you get 100 percent credit on those, the age of the old ships, when you get rid of them. But I owe you that, and we will get back to you and show you the data behind it.

Senator STEVENS. Are you increasing the concept of the half-life and saying these newer ships will last longer?

Dr. HAMRE. No, sir.

Senator STEVENS. Are you telling me a frigate built today has a life span longer than one built in the 1970's?

Dr. HAMRE. No, sir; I think what I am showing you here is the lower bound of the range is about 15 years, so it is a 30-year ship. The upper bound of the range is about 20 years, like the aircraft carriers, things like that. What I am concerned about is I can remember when I first started in this business we considered the average age of a tactical aircraft at 7.5 years. These were 15 year airplanes, and we are now showing that they are 25 year airplanes.

Senator STEVENS. That, too, it looks to me like people are projecting one-half service life of a bomber to be 10 years.

Dr. HAMRE. Of course, with the B–52's they are infinite. [Laughter.]

Senator SHELBY. Or close to it. [Laughter.]

Dr. HAMRE. But the lower range, we are still showing about 10 years, 9 years. But you have to be very careful you do not lull yourself into confidence by changing your average year and what you can accept as an average service life.

Senator STEVENS. Well, I think it is a lot worse than this chart shows.

Dr. HAMRE. I am already panicking, sir.

Senator STEVENS. I am talking about combatant ships.

Dr. HAMRE. Yes, sir, surface combatants. But we will be glad to go over any of that, sir.

WEAPONS MODERNIZATION STRATEGY

Continue leap-ahead systems
Accelerate cost effective upgrades
Expand power projection investments
Enhance battlefield awareness
Strengthen NMD/TMD programs

WEAPONS MODERNIZATION STRATEGY

Let me just very quickly show you the broad categories for the modernization program. We continue the new generation systems. We put a lot of extra funds we got—we put a lot of it into these cost-effective upgrades and the power projections, as well as the battlefield. I am not going to spend a lot of time on BMD because it is well beyond the design limits of the comptroller to talk about that.

CONTINUE LEAP-AHEAD SYSTEMS

[Budget authority in billions]

	Fiscal year 1997		Fiscal year 1998–2001	
	Quantities	Dollars	Quantities	Dollars
F–22	....	2.0	40	11.1
Joint strike fighter	....	.6	....	3.2
F/A–18 E/F	12	2.6	150	14.3
V–22	4	1.1	31	3.9
NSSN	....	.8	2	7.5
Comanche	....	.3	....	1.7

LEAP AHEAD SYSTEMS

Sir, these are the funding levels. As you can see, we are holding the line with very large funding for the major aviation programs.

They are still fairly small quantities when you look at them, in one sense.

Senator SHELBY. Doctor, may I ask you about the Comanche?

Dr. HAMRE. Yes, sir; the Comanche is effectively unchanged from last year. We did not fundamentally change the profile.

Senator SHELBY. That is a high-priority program for the Army, is it not?

Dr. HAMRE. Yes, sir.

Senator SHELBY. They tell me it is their highest priority.

Dr. HAMRE. It is probably only below the Longbow on the Apache. I think that probably—I know from the resourcing that was a higher priority than Comanche, but it is high priority for the Army.

Senator SHELBY. But even the Longbow on the Apache is for the interim, the Comanche is for a little later.

Dr. HAMRE. This is long term. We will not have the first Comanche company out there until 2015, probably.

Senator SHELBY. But you have got to look long term, and without the Comanche coming along, you will not have a mobile Army.

Senator STEVENS. We tried to accelerate that this year. You are not going to be able to sustain that.

Dr. HAMRE. No, sir; we do not have resources to be able to sustain it. You did bring in $100 million to try to bring that forward, but we did not have the resources to be able to follow through on that.

Senator STEVENS. You are not going to release that money?

Dr. HAMRE. Oh, no. The money is released. The money is released.

Senator STEVENS. But you are not keeping the trend line, the new trend?

Dr. HAMRE. We just did not have it. This is one of those areas, there were lots of things we would like to do.

May I spend a second and talk about the new attack submarine? Because I know there will be some criticism of us on this. The Armed Services Committee, the authorization bill directed us to start a competition, but in a boat at Newport News, and to do that boat in 1999. We did not have the money to put it in in 1999. Now, they put an escape clause in the authorization bill. They said put it in 1999, even if you cannot afford it. You can put it over in the unfunded category. That is the only thing in the budget where we were told to put something in unfunded, and so we did that.

Now, the proponents for that ship are not happy with us. But it is in the FYDP that you will see, when it is submitted.

Senator STEVENS. Unless we find that you all have got a pot hidden somewhere, like we found with Mr. Deutch. [Laughter.]

Dr. HAMRE. If there is a pot of gold, it is still his, but I would be glad to take it and participate.

ACCELERATE COST EFFECTIVE UPGRADES

[Budget authority in billions]

	Fiscal year 1997		Fiscal year 1998–2001	
	Quantities	Dollars	Quantities	Dollars
M–1A2	120	0.3	600	2.5
Bradley FVS	29	.3	388	1.4
Truck SLEPS			5,859	.5
Apache Longbow		.4		2.3
F–14 upgrades		.2		.6
AV–8B	10	.3	42	1.4
B–1B		.3		1.1

COST EFFECTIVE UPGRADES

Sir, these are upgrades to existing systems. This was a major beneficiary in this area when we got additional resources. We beefed up. We were at only 90 or 92 per year of the M–1A2. We got that up to 120. We brought forward by about 3 years the Bradley program. We finally have a fairly strong truck SLEP program.

Senator STEVENS. I remember this briefing I had about the new tank for the next century and how it was supposed to crank in about 1997. Whatever happened to that new tank, do you know?

Dr. HAMRE. I think they still have the briefing charts. [Laughter.]

The only new vehicle the Army has now, sir, is the crusader artillery piece, which is to be a new generation field artillery system, self-propelled, 155 millimeter. Now, that is designed—the chassis for that is supposed to be more generically acceptable for other applications, but there is no new generation tank on the drawing boards.

Senator STEVENS. Have you got that in the budget this year? The new 155 millimeter?

Dr. HAMRE. Yes, sir.

Senator STEVENS. Then you are building a modular system?

Dr. HAMRE. Yes, sir; well, it is—the chassis is supposed to be capable of being modified. I am a little distant from my current knowledge.

Senator STEVENS. Well, it was supposed to be able to become a tank, a command post, and also be the new Bradley.

Dr. HAMRE. Jay, right behind you, is shaking his head that I do not know what I am talking about.

Senator STEVENS. He says they terminated the program. I believe it is the Phoenix tank that is coming back at us. [Laughter.]

Senator SHELBY. Mr. Chairman, can I ask a question?

Senator STEVENS. We need it, do we not?

Senator SHELBY. On the tanks, the M–1A2, you have got 120. What is the upgrade of that going to mean for the Army? I know it is going to mean a lot.

Dr. HAMRE. Sir, we are moving from the M–1A1 to the M–1A2. The biggest, the most important change here, is we are putting in a digital image of the battlefield inside that tank. This is going to be revolutionary for tank warfare. It is just like putting in radar in the cockpit of an airplane. It is going to be that revolutionary.

Senator SHELBY. It changes the whole concept?

Dr. HAMRE. Totally. It is going to make them dramatically more effective vehicles. They will know where they are, they will know where their colleagues are, and they will know where the enemy is and they will be able to share that information even if they cannot see them. And there will be dramatic improvement, so there it is a great change, great upgrade.

Senator SHELBY. And there is no known tank in the world in this area?

Dr. HAMRE. No, sir; nothing like that. It is analogous to the cooperative engagement system that the Navy is working for ships at sea. It is a tremendous thing, and the Bradley upgrade is going to be doing the same thing in the fighting vehicles, and they will be able to share information from one vehicle to the next. It is a tremendous upgrade.

Unless there are questions, I will not spend any more time on this.

EXPAND POWER PROJECTION INVESTMENTS

[Budget authority in billions]

	Fiscal year 1997		Fiscal year 1998–2001	
	Quantities	Dollars	Quantities	Dollars
Carrier replacement				0.6
C–17	8	2.3	52	12.9
LPD–17			6	4.6
Sealift	2	1.0	4	2.4
DDG–51	4	3.4	11	11.8
B–2		.6		1.4

POWER PROJECTION INVESTMENTS

The power projection—and, of course, this does assume—this is the long lead for the new carrier in 2001—this does assume approval of the multiyear, and I know that that is being heavily debated right now. We hope you will seriously consider it. It is very good, and we are now getting very good prices on the C–17, frankly, because of the pressure as well as the support of this committee that said we want this, but we want it at a fair price for the taxpayer. And if it had not been for this committee's pressure like that we would not have gotten $5 billion out of the cost of this program. So it has been a tremendous breakthrough.

Senator STEVENS. Three times the C–17 was killed by three committees and we kept it alive. We can assure you we will keep alive the multiyear.

Dr. HAMRE. Thank you. I do need to explain something on the DDG. We were given direction to buy three DDG's last year, but we only got money for two. We are going to try to honor that, because we put four in this year so that it averages six over the 2 years. And we will ask for, in a reprogramming, about $100 million of advanced procurement so we can enter into the contract for that third one in 1996. But the money for it is in 1997, and so we have for destroyers in 1997 as opposed to three, so that we get six over the 2 years.

ENHANCE BATTLEFIELD AWARENESS

[Budget authority in billions]

	Fiscal year 1997		Fiscal year 1998–2001	
	Quantities	Dollars	Quantities	Dollars
UAV		0.3		1.2
Global broadcast system		.2		.3
JOINT STARS	2	.7	8	1.9
SBIRS		.3		2.6
MILSTAR/follow-on		.7		2.8
Cooperative engagement capability [CEC]		.3		.7
AWACS		.3		.5
Army digitization		.4		1.3

BATTLEFIELD AWARENESS

Sir, very quickly, and I am sorry I am going on so long, in terms of battlefield awareness, and this was very much the emphasis of the chairman's program assessment and Admiral Owens, and we put a lot of emphasis into it, some very important new initiatives. We know about the global broadcast system. I have got to tell you this, if I had one program in the budget that is broken, that is not properly funded, it is this one, and it is my fault. This should be $800 million, not $300 million. We had some disagreement over who was going to pay the $300 million, whether it was going to be the national part of intelligence program or whether it was going to be the Air Force. One thought it was going to do it, the other thought it was going to do it, neither did it, and I did not catch it, and so that is my mistake, and I promise you I will fix it, and it is properly priced in 1997. So the 1997 program is correct.

Senator STEVENS. What are you going to fix?

Dr. HAMRE. The global broadcast system. I need to find $500 million so that I have a fully resourced program.

Senator STEVENS. In what year?

Dr. HAMRE. This is 1998 and 1999, sir.

Senator STEVENS. We will help you. I think that is a very high priority.

Dr. HAMRE. Thank you, sir. I will not spend any time on the rest of this.

Senator STEVENS. You might mention the last line.

Dr. HAMRE. The Army digitization—this is actually one that I think this committee can take a lot of credit for jump-starting the Army digitization.

Senator STEVENS. We did it.

Dr. HAMRE. Yes, sir; and what we are doing is we are following through on it, the dollars that you gave it to get that started. I mean, this is a fairly robust effort because we are not trying to bring this digital imagery across the entire fleet of vehicles inside the Army. So we have got it started. You started it for the tank and the fighting vehicle, but now to bring it more extensively into the other elements, the maneuver elements, the air defense, artillery, et cetera, this is the follow-through part of that.

STRENGTHEN NMD/TMD PROGRAMS

[Budget authority in billions]

	Fiscal year 1997		Fiscal year 1998–2001	
	Quantities	Dollars	Quantities	Dollars
PAC–3	....	0.6	535	1.9
Navy lower tier	....	.3	....	1.2
THAAD	....	.5	....	2.1
Other TMD	....	.7	....	3.0
NMD	....	.5	....	1.6
Support technology	....	.2	....	.9

NMD/TMD PROGRAMS

Shifting very briefly, and I know this is also going to be highly debated this year——

Senator STEVENS. Let us just skip that. I am sorry to tell you I have got to go by 11 o'clock. Did you want to talk about that?

Senator SHELBY. No; I have got some questions, but not on that.

INFLATION SAVINGS

Senator STEVENS. I have some questions I would like to get to. I want to talk to you one last comment about this inflation savings, your last chart, and then I will yield to my friend. What this tells us is that your estimate is that you are going to take out $45 billion, and you are going to get $30 billion back in the period.

Dr. HAMRE. Sir, what happened is we could have lost $45.7 billion, and we were allowed to keep $30.5 billion of it. And so we lost a total of $15.2 billion over the period.

Senator STEVENS. It is a Chinese jigsaw puzzle, I know, but—and I am not—I do think we have to find some way to find out where all those marbles are, because this is where I disagree with you. I just do not think you can get out those savings the way the administration has, and I think it is the same thing I saw once before in the 1980's when they rejected the savings in—that was President Reagan's bunch in terms of the currency exchange. And they said dollars were going to be sound, no problem, we have got straight line, and it was not. It fluctuated, and we got caught.

Now, I think the same thing here. There is no give in this budget over the 5-year period. And you are just taking it out. I can understand doing it year by year, but I do not understand why we have done it for 6 years and we have lost, what? Sixty percent of it?

Dr. HAMRE. No; we lost 30 percent, sir. But, given the constraints we were under to get to a zero deficit by 2002 with so much of it falling on discretionary spending, we felt pretty good about only losing $15 billion. I think it was a very strong commitment by the President to try to insulate his piece.

Senator STEVENS. That is like my wife having a budget and saying that the dress she bought was not on budget, but she saved 50 percent. And she wants me to take into account she still has 50 percent more to spend. [Laughter.]

That is what you are doing, and it does not add up in this business, and I think we are going to be in real trouble.

[The information follows:]

INFLATION SAVINGS

	1995	1996	1997	1998	1999	2000	2001	2002	1997–2002
	Percent								
GOP deflator:									
President's budget:									
February 1995	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	....
January 1996	1.9	2.0	2.2	2.2	2.3	2.2	2.2	2.2	....
	Dollars in billions								
Savings:									
Impact of revised rates	....	....	−$4.3	−$5.5	−$6.7	−$8.3	−$9.9	−$11.0	−$45.7
President allowed DOD to reapply	....	....	+4.3	+3.9	+4.6	+3.8	+2.9	+11.0	+30.5

PROBLEM WITH NAVY FUNDS

Senator STEVENS. Senator Shelby.

Senator SHELBY. I will try to be as brief as I can, Mr. Chairman.

Dr. Hamre, in 1995 your office released funds to the Navy Comptroller, $7 million, of which was supposed to be designated as the NAVSEA drawing procurement program. The Navy Comptroller's Office has said that the funds were not properly designated, and, therefore, never made it to the program it was intended to fund, and were not available at the close of the fiscal year. A lot of things get lost, especially money, as you well know.

Your office is trying to determine what happened to the money. And I look forward to your response. I do not think you are able to give it right now.

Dr. HAMRE. I look forward to my response, too, when I know what happened. [Laughter.]

Senator SHELBY. But you are the Comptroller, and I know you are tracking money, where it goes and for what it was intended, and then maybe used for something else.

Dr. HAMRE. I promise you one of these smart guys behind me is working on this right now as we are speaking, because I will find out. I do not know about it.

TRACKING APPROPRIATED FUNDS

Senator SHELBY. My colleagues and I remain concerned about funds that we believe are misappropriated, misused, in the defense budget. What is your policy in this area, and what recourse is available when funds are intentionally or unintentionally diverted? Sometimes I know you do some intentional diversion.

Dr. HAMRE. That is a hard question. Let me—we do not intentionally violate the congressional direction—ever. And my office is the watchdog for that in the Department. I feel it is—I mean, I am Secretary Perry's Comptroller, but I am also your Comptroller.

Senator SHELBY. That is right.

Dr. HAMRE. And it is my role to make sure that we follow direction.

Now, the mechanism we do that is we sit down, we go through all of the legislative history, we identify those items that are of specific significance and interest to the Congress, and we put a flag on them, and then we track to make sure that people do execute it that way. I am not familiar with this. Believe me, I will find out.

Now, I will say that there is one problem we have when we get to undistributed reductions in that appropriation, because I have got to find ways to basically offset that undistributed reduction. Sometimes we get that in very general cases like against R&D, and in some cases it is an inflation adjustment. And in those cases we have to ask the services to do that. But I will find out.

In this particular instance, our policy is to follow the law and the guidance we get from the Congress. We consider it authoritative.

ANTISATELLITE TECHNOLOGY

Senator SHELBY. Dr. Hamre, there has been broad support in the Congress for the antisatellite technology, as you well know. The 1996 appropriation included what we would call modest funds for the ASAT program because of the critical role that satellite surveillance plays in military doctrine. The funds, however, have not been released as of yesterday, it is my understanding. I have been told that the justification and request for funds was sent to your office by the Department Counterproliferation Office. You might want to check this out, if you do not know it offhand. With this in mind, how soon will you release the funds to the ASAT program managers?

Do you want to get back with me on this?

Dr. HAMRE. I would like to try to answer right now, to say—I am looking quickly to find out whether that was on the rescission list, and I know that is going to make you even madder. I believe it is on the rescission list.

Senator SHELBY. You think it is on the rescission list?

Dr. HAMRE. Yes, sir; we were directed to prepare as a broader part of the administration's submission a rescission list, and this was one of the things. We went—each of the services put—basically, I asked for $250 million from each of the services.

Senator SHELBY. But if it is not rescinded, you would spend it accordingly?

Dr. HAMRE. Absolutely, that is the law.

Senator STEVENS. Senator, can I interrupt?

Senator SHELBY. Yes, sir.

Senator STEVENS. I do want you to continue, John. I hope you will excuse me. I have to go for preparation to another meeting.

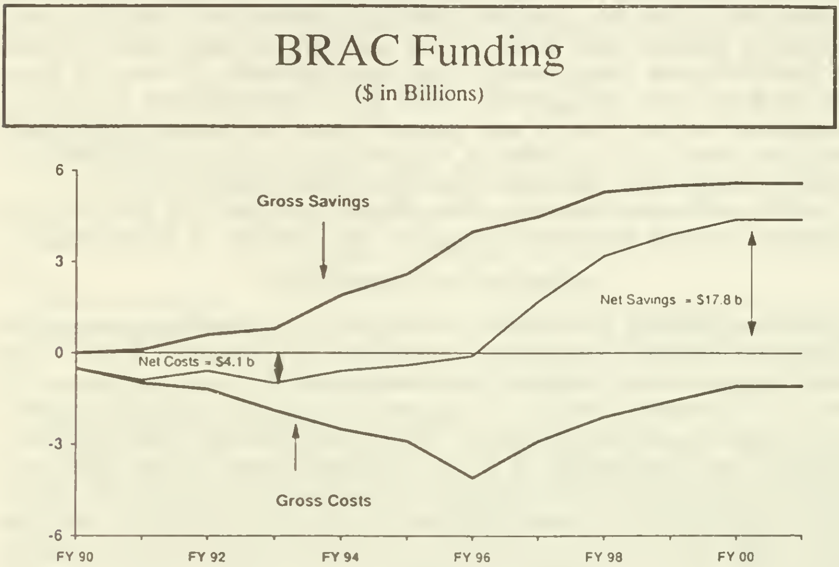
Dr. HAMRE. It was an honor to be invited, thank you.

BASE CLOSURE SAVINGS

Senator SHELBY. Dr. Hamre, Secretary Perry's news release recently stated that the Department's modernization effort, and I will quote him, is contingent upon the realization of savings expected to accrue from infrastructure reductions, especially base closings. What are the infrastructure reductions contemplated in this budget?

Dr. HAMRE. Sir, may I show you one chart?

Senator SHELBY. And how confident are you in the Secretary's projected savings from base closures?



Dr. HAMRE. Sir, I am very confident in the savings line. I am slightly less confident in the costs. This is the gross cost every year for base closures. As of last year we had $4 billion in our budget for base closures. These are very auditable savings. I am very comfortable with the savings, because we know exactly the installations, what we were paying for, what it cost to close them, and what we are now paying.

Senator SHELBY. That is the purpose behind all of it, is it not?

Dr. HAMRE. Yes; but this includes costs which I am less confident for, primarily in the environmental issues. A lot of these bases have bigger environmental cleanup things.

Senator SHELBY. That we are going to have to face, are we not?

Dr. HAMRE. Yes, sir; now, the way I am showing you here is that flattens out. My guess is that extends into the future. But I do not have a good handle on it. This, I am very confident of these numbers.

Senator SHELBY. But the environmental cleanup costs, you are concerned about, correct?

Dr. HAMRE. I am less confident.

Senator SHELBY. Because you cannot put an accurate number on it?

Dr. HAMRE. It is very hard, sir, because invariably when you get into the details of doing site surveys and other things you find out it is more than you originally thought. But that is the amount that is in our budget that went to modernization for the $17 billion a year.

FORCE STRUCTURE REDUCTIONS

Senator SHELBY. Dr. Hamre, Secretary Perry has also stated that he would consider, as Secretary of Defense, force structure reductions before he would sacrifice modernization efforts. Do you agree with that?

Dr. HAMRE. Yes, sir.

Senator SHELBY. How do you balance that?

Dr. HAMRE. I think the Secretary's first priority is, frankly, to try to get savings out of the nonforce structure administrative side of our operation. And I think that that is, for example——

Senator SHELBY. Including the civilian force?

SAVINGS FROM ADMINISTRATIVE CHANGES

Dr. HAMRE. Absolutely. May I give an example of this? This is under my office, where I have all the finance and accounting activities. The other day, my wife, who works for a trade association here in town, came home with the dues to be a member of this association, it is lawyers that are participants, is $125. She brought me a Navy contract that was 5 pages long for being a member, to pay the dues, a 5-page contract to pay $125 dues. And I said, do you take Visa? And they say sure we take Visa. But we routinely issue contracts when you could buy it with a commercial credit card.

We are desperately trying to get out of the mind-set that you have to have a Government contract——

Senator SHELBY. You are trying to get into the marketplace, are you not?

Dr. HAMRE. Absolutely. Sir, we could do 11 billion dollars' worth of work tomorrow on the credit card if we could just get our system to shake loose its thinking. We only bill about $800 million.

Senator SHELBY. How are you going to do that? How are you going to accomplish that end? I know it is hard.

Dr. HAMRE. Partly, I have to remove some of the impediments that we have placed in the way on its use, and we have not implemented the card very effectively.

Senator SHELBY. Does that include personnel at times?

Dr. HAMRE. Partly. But the main thing is that the first box has to be you have got to prove why you cannot use the card before you issue a contract.

Senator SHELBY. I like that.

Dr. HAMRE. And that is what we really have to do.

Senator SHELBY. But it is a totally different mind-set.

Dr. HAMRE. Totally different mind-set.

TRAVEL REFORM

We are doing the same on travel. Today, we have the world's worst travel system in the world in the Department of Defense. We have got 4,000 people that are managing just simply the vouchers. And we are going to entirely get rid of that and put it in the private sector. So that is what we need to do. We need to get that side of the cost out of the Department before we look at force structure.

Senator SHELBY. But as a large consumer of civilian travel services, it looks to me like you could just about write your ticket with the airlines and other service providers, because it is such a mass market. But, heretofore, that has not happened, has it?

Dr. HAMRE. That is because, forgive me for saying this, we had a cover-your-butt travel system. We were afraid that there were going to be some bottom feeders that were going to cheat, and we knew we would never catch them but we wanted a system where you could not blame it on me. So we had lots of rules and regulations, and you can blame it on the breakdown of the system rather than putting responsibility right where it belongs.

Senator SHELBY. Well, probably in the last 10 to 12 years, corporate America has looked at their travel budget and thought, goodness, this is where we can save money, and they have, have they not, by consolidation and looking for bargains?

Dr. HAMRE. Sir, the average in industry right now is the cost of travel. That is, in addition to the actual cost of traveling, but the administrative cost of travel in industry averages about 10 percent today. Best in industry is 5 percent, and we in the Department of Defense are 30 percent.

Senator SHELBY. I have seen a number of CEO's of some fairly large companies traveling economy.

Dr. HAMRE. Yes, sir.

Senator SHELBY. And they want to set the tone and that makes sense.

Dr. HAMRE. Well, your Comptroller travels coach.

Senator SHELBY. So do I.

Would you think that it is imperative that all of the Department's activities operate as efficiently as possible dealing with not just the Ballistic Missile Defense Organization, but others, too?

Dr. HAMRE. Oh, absolutely. Yes, sir.

BALLISTIC MISSILE DEFENSE ORGANIZATION [BMDO]

Senator SHELBY. With this in mind, what is your impression of the Ballistic Missile Defense Organization and its growing infrastructure? In other words, bureaucratic personnel increases, keeping in mind that BMDO does not field any equipment?

Dr. HAMRE. Sir, I apologize, I am not well equipped to answer that. I deal with the BMDO organization in a very superficial way once a year when I put the budget together, and I deal largely with the Director, with General O'Neil. I am not aware of his underlying structure. But believe me, I will look at it.

Senator SHELBY. BMDO should remain, as a lot of us on the committee believe, small and efficient. We should put the money where the resources can be dedicated to activities that actually will develop and, hopefully, field weapons systems and not just be eaten up by administration costs.

Dr. HAMRE. I will be happy to look at that. I think General O'Neil has done a terrific job. I would be glad to sit down and talk with him about it.

THAAD PROGRAM

Senator SHELBY. What is the rationale behind the administration's decision to scale back and delay the full development of the THAAD program?

Dr. HAMRE. Sir, I am not an expert. Let me share some of what I do know.

The original THAAD program planned for a fairly complete redesign of the missile between the demonstration and the full-scale development. It was, I think, a very conscious choice that we did not need to do a full redesign, that the basic design was sound. And so that saved an enormous amount of money. I think that is the largest factor that was behind the change in the pricing for THAAD.

Senator SHELBY. The THAAD program is a very promising technology, is it not? And a quantum leap over what we have?

Dr. HAMRE. If you look at coverage envelopes, THAAD compared to PAC–2 or lower tier is astounding.

PRIVATIZATION

Senator SHELBY. Doctor, you mentioned earlier there is a push, not only in DOD but all through Government, to pursue privatization, to save the taxpayer money and also to be more efficient. I am interested in your basic perspective or your concept of privatization and its impact on your planning in the future. In other words, how can you implement more of this, using the market where you can, and what will this mean to the bottom line?

Dr. HAMRE. Sir, may I shift to say I am going to give you personal views now, not departmental views. We have a very explicit process in the Department that Secretary White is heading up, and John Goodman, who is the Deputy Assistant Secretary, is the action officer for it, and you really need to talk with them about all of these. But may I offer a personal view, which is I think if we simply try to do privatization by taking a job and saying could we do that same job in the private sector cheaper, I do not think that is the best way to go. I think we should reengineer the basic work itself, the way we are doing it in travel.

We would not save nearly as much money if we simply said let us take all those people that are processing today's vouchers and put them out in the private sector. We would not save anything. You have to redesign the underlying business practice——

Senator SHELBY. Your whole concept must be changed.

Dr. HAMRE [continuing]. And then the savings are extremely large. This is why, for example, I am a big fan of using the commercial credit card. I do not need to take and put finance and accounting activity out in the private sector. I need to just get it out of the Government. But use a card. They are a robust industry, they are ready to do the business.

Senator SHELBY. Like most of America does everyday, or most of the world.

Dr. HAMRE. Absolutely. Absolutely.

Senator SHELBY. And it is proven, is it not, that it works?

Dr. HAMRE. Absolutely. Now, it gets harder when you think about things like base operations, depot activities, things of this nature, and now you have to go into more traditional privatization techniques, which is the A–76 study, and that sort of thing. We rather suspect we need to make some changes in A–76 processing. For example, under current procedures you cannot do anything on a class-action basis. You do it on a base-by-base activity. So if you wanted to say as a class action I want to change—I want to consider privatizing maintenance activities for base operations, we do it right now on a case-by-case basis.

Our view is we ought to be able to group those on a more generic basis. But I think frankly we need some help of whether it is administrative changes or it is legal changes. I am not sure, because I am not an expert.

Senator SHELBY. Well, I know you cannot change everything in 1 or 2 years. You cannot turn a ship around in a creek, can you?

Dr. HAMRE. No, sir.

Senator SHELBY. But you can try.

Dr. HAMRE. But this is one where we do need the help. We also could, frankly—you know, the administrative guideline is that we have to do an A–76 if it involves more than 50 people, but I think we get guidance from Congress that if more than 10 people. And I know these are very hard issues locally, but it would be helpful if the bar were not so low.

So there are a number of things like this that we would like to work with you on.

ACCOUNTING FOR SAVINGS

Senator SHELBY. How do you factor these variables into your plan, your budget? You are looking to save money. You are trying to make the Pentagon more efficient in every area. Some areas are more complex than others, as you just mentioned, but how do you figure these variables into your budget?

Dr. HAMRE. From a budgeting standpoint?

Senator SHELBY. Yes.

Dr. HAMRE. Secretary Perry's guideline is we are not putting in savings in the budget that we cannot document. And so we have not put in just generic weapons.

Senator SHELBY. No pie in the sky?

Dr. HAMRE. No pie in the sky wedges of hypothetical savings. It is seductive to try to do that, because obviously if you assume big savings from, say, acquisition reform you could pretend to buy lots more things, and we have not done that. We have only put in those things where I can show you an actual audit trail for the savings. I really think that is the right way to go, and I think the Secretary is right on that.

Senator SHELBY. Have you done any work or research in your office as to the method to compute the Consumer Price Index, which Alan Greenspan has mentioned before the Banking Committee. It needs to be done, but it should not be done politically. It should be done based on real factors, empirical evidence that the index is overstated or understated or whatever.

Has the Comptroller's Office looked at the possibility of a downward adjustment, or an upward adjustment, to save money? Because it would be a factor, would it not?

Dr. HAMRE. Yes, sir; honestly, I do not think we have done that.

Senator SHELBY. Is it premature?

Dr. HAMRE. Well, we would rather default in that. That is traditionally a function that OMB does for the Government, Governmentwide.

Senator SHELBY. Bureau of Standards.

Dr. HAMRE. So we do not have our own procedure.

Senator SHELBY. You will have to wait until that happens, if it happens, and then react accordingly.

Dr. HAMRE. Yes, sir; I think that we would be interested in that. We are probably the one Department, more than any, that is interested in economic assumptions for budgeting, because it makes a big difference. We budget in detail over a 5-year period. Most other agencies do not. They budget for 1 year or 2.

Senator SHELBY. But credible economics are important?

Dr. HAMRE. Yes, sir; and it is very important to us.

Senator SHELBY. Because otherwise it comes back and can bite you.

Dr. HAMRE. Absolutely. Absolutely. But on this, let me find out if we have done anything like that, and I would be glad to follow up with you.

ADDITIONAL COMMITTEE QUESTIONS

Senator SHELBY. Doctor, I have no more questions. We appreciate your coming here today and sharing with us your knowledge. Senator Stevens had to go, but we look forward to working with you and the Secretary as we move toward passage of this year's bill. There are a lot of things we are going to have to deal with.

Dr. HAMRE. Yes, sir.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

Question. The fiscal year 1996 Department of Defense appropriations conference report included $20 million to procure one additional PC-Cyclone class operations patrol craft/vessel. To date, these funds have not been released. When does DOD intend to begin procurement of this craft/vessel?

Answer. The decision on proceeding with procurement of this PC-Cyclone class craft is currently under consideration. At present, the Department does not have an identified requirement for an additional PC-Cyclone class craft. In light of the congressional add, the Department is reviewing requirements to determine how it might make use of an additional PC.

Question. The Fiscal Year 1996 Department of Defense Authorization Act stated that funds available to the Department of Defense may not be obligated or expended during fiscal year 1996 for retiring or dismantling or preparing to retire or dismantle B–52H bomber aircraft. Since the Appropriation Bill funded an average primary aircraft inventory of 66, and the ending inventory in fiscal year 1996 was 94, how do you intend to fund the additional 28 aircraft? At what level of support?

Answer. The 28 B–52H's are being placed in attrition reserve in lieu of retirement or dismantlement. As a result, the attrition reserve includes 31 aircraft vice a requirement of 8 aircraft. The Air Force does not plan to operate or maintain the 23 excess B–52H's. Barring any additional appropriation language, these 23 aircraft will be placed in Total Inactive Inventory status which does not require routine or depot maintenance.

SUBCOMMITTEE RECESS

Senator SHELBY. And now, the subcommittee will stand in recess until March 20, when we will receive testimony from Gen. Malcolm O'Neil, Director of the Ballistic Missile Defense Organization.

Thank you, Doctor.

Dr. HAMRE. Thank you, sir.

[Whereupon, at 11:12 a.m., Wednesday, March 6, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, March 20.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, MARCH 20, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Shelby, Inouye, Johnston, and Bumpers.

DEPARTMENT OF DEFENSE

BALLISTIC MISSILE DEFENSE ORGANIZATION

STATEMENT OF LT. GEN. MALCOLM R. O'NEILL, U.S. ARMY, DIRECTOR

ACCOMPANIED BY:

- **ADM. TIM HOOD, EXECUTIVE OFFICER, THEATRE AIR DEFENSE PROGRAM, U.S. NAVY**
- **MAJ. GEN. JOHN HAWLEY, DIRECTOR, GLOBAL POWER PROGRAMS AND ASSISTANT SECRETARY FOR ACQUISITION, U.S. AIR FORCE**
- **COL. DAN MONTGOMERY, EXECUTIVE OFFICER, MISSILE DEFENSE PROGRAM, U.S. ARMY**

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, General. Senator Inouye has asked that we proceed. He will join us later. I am pleased my good friend from Alabama is here.

I would note for the record, General, that we are aware that you have announced your intention to retire, and this may well be your last appearance before this committee. We do want to thank you for your dedication and your leadership in your position that you now hold and before. I think that your commitment to our missile defense is well known throughout the country, and we are really grateful to you for your career and your service. I hate to see such young men think about retiring. [Laughter.]

This is the first detailed program hearing we are having this year, and we have asked you to come up for a series of reasons. I just mentioned one. The timing is very critical. We added over $500 million to accelerate the development of theater and national ballistic missile defenses in fiscal year 1996, and we are almost midway through this year. We really need to know how you are proceeding.

Second, the Department just announced the results of the Ballistic Missile Defense Program review by Dr. Kaminski, and I am sad to say he asked to see me before this meeting and we were just not able to arrange that. The program review made funding and program adjustments, at least in the program they have not actually been made yet, but they recommend adjustments to every key ballistic missile program we have.

Now I think that we demonstrate in this subcommittee that this is our priority issue as far as our approach to defense, and we want to start the discussions with regard to that program review as quickly as possible. If we are able to find additional funds for this Defense budget, as far as I am concerned we are going to direct them to the area in which you serve. It has to be our first priority at this time as far as we are concerned.

The President's recent program reduced the BMDO funding by $3 billion over the next 5 year period, and with one exception—fiscal year 1997 budget does not allow BMDO to meet any of their deployment deadlines that were endorsed by Congress in the authorization bill earlier this year, or was it the Budget Act. I cannot tell you how troubled this makes me. I just want to point out to you, we do not talk about it too much, but I think the two of us, Senator Inouye and I, represent States that are gradually coming within the review of the non-Soviet ICBM's, within the range, I should say, and we are quite concerned that this program be as robust as possible. I hope all Americans join us in that concept.

The program review reduced THAAD by $1.7 billion over future years, and your testimony notes that THAAD is the only core TMD system capable of engaging the full spectrum of theater-class ballistic missile threats. We have reviewed your statement, General, but the time is yours this morning. We have turned off all lights, we are not going to put any restrictions on you. If you want to stay here all day, we would be pleased to stay here and chat with you about what you have done and what you see as far as the Defense Ballistic Missile Program is concerned.

Now furthermore, we have a feeling that the DOD plans sacrifice the development objectives of THAAD, and we would like to talk to you about that. The Commander of United States Forces in Korea, the area most threatened by the systems that that could develop against, has communicated with us his feelings about that decision. Now we understand that the Pentagon has deferred the decision on deploying the national missile defense system, and I think we are going to have to go into classified hearings here as part of our review of this overall development in order to get the intelligence community's assessment of the impact of these recommendations on their assessment of the threat.

But my staff tells me the DOD estimate is that the threat to the United States is at least 15 years away. They have not been in Anchorage lately, and I think that the man or woman on the streets in Alaska knows the developments in North Korea apparently better than those in the Pentagon.

I do hope that we can learn from your experience before you leave this position. Again I want to say to you sincerely that you have done a wonderful job. I know you. You are subject to command decisions, and we are not going to put you on any hot spot today, because as an officer you are going to carry out demand decisions, but we do want to explore your approach to some of these problems that we mutually face.

Senator Shelby.

PREPARED STATEMENT OF HON. RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. I ask that my full statement be made a part of the record, and I have a few comments.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

I want to thank the chairman for calling this hearing at such an early point in the fiscal year 1997 budget cycle. I think this early hearing illustrates the concern of the chairman, the ranking member, and the other members of this committee about the Department's plans for utilizing the funding increases for theater and national missile defense provided by Congress in fiscal year 1996.

Mr. Chairman, I think the Congress acted in the best interest of this country by increasing, over the objection of the administration, funding for missile defense. Given the lack of overall commitment by the administration to defending this Nation against missile attacks, I think we have every right to be concerned over the rate of the money we provided for NMD and TMD programs last year. The threat of limited missile attack from rogue nations, second world threats and traditional powers is real, despite the best efforts of this administration to duck this reality. Given such a threat and our existing missile defense capabilities, it makes sense that we continue to accelerate research and deployment activities relating to NMD and TMD systems.

We cannot squander the resources provided by this committee last year. To do so would be not only wasteful, but foolishly risky. Given BMDO's track record of what I would characterize as misdirecting and squandering R&D funds on overhead, redundant management, and pet projects, I believe the committee needs to be vigilant in watching the expenditure of these valuable but limited resources in order that our troops and the American people get the protection they deserve and are paying for.

I look forward to a dialogue with the General today and I thank you, Mr. Chairman, and the ranking member for your leadership on this issue.

Senator SHELBY. I think we have every right on this committee to be concerned over the fate of the money that we provided for national missile defense and theater missile defense programs this past year. The threat of limited missile attack from rogue nations, second world threats, and traditional powers is real, despite the best efforts of this administration to duck this reality. Given such a threat and our existing missile defense capabilities, it makes sense, I believe, that we continue to accelerate research and deployment activities relating to the national missile defense and theater missile defense systems.

I believe, General, that we cannot, we cannot squander the resources provided by this committee last year. To do so I believe would not only be wasteful, but foolishly risky, given the BMDO's track record of what I would characterize as misdirecting and squandering, yes, squandering our R&D funds on overhead, redundant management, and pet projects. I believe the committee needs to be vigilant in watching the expenditures of these valuable but limited, yes, limited resources in order that our troops and the American people get the protection that they deserve and are paying for.

I look forward to a dialog with you, but I am concerned about some of the budget items, as you well know.

Senator STEVENS. Senator Johnston.

STATEMENT OF HON. J. BENNETT JOHNSTON

Senator JOHNSTON. Thank you, Mr. Chairman, General O'Neill. Senator Stevens and I see defense matters very much alike, save on ballistic missile defense. When he says we strongly support the SDIO and ballistic missile defense and all of those things, he is speaking for a very closely divided Senate. I personally take the view that it is outrageously wasteful for this country to even consider at this point a national missile defense system, particularly now that the cold war is over. When the cold war was going on I felt that there was no real chance that certainly a space-based system could ever pass the NTSA test, could ever be an effective astrodome over the United States.

I know now, of course, that the present plans are when there is, although we have deferred a national missile defense until sometime later, it would be ground based, it would be not a vigorous system that would defend against anything other than a very limited attack by a, quote, rogue nation. Now, why in the world would a rogue nation want to send a ballistic missile to the United States, leaving a signature of where that came from, when it is much, much easier to attack this country in a whole host of ways, including nuclear attack? I mean, look, you could smuggle in a nuclear bomb inside a marijuana bale easier and with much more impunity than you could attack the country. Now I know this administration is not talking about an immediate commitment to the ground-based system, which I guess would take, what, four sites in the country and certainly give up any question of ever balancing this budget to the extent we commit to that.

I think we ought to have what we used to call a robust research system, and if $33 billion since President Reagan began is not a robust research system I do not know what is. I just wanted you to understand, and I am sure you do, that the Senate would be pretty closely divided on this question, depending upon which party has the control. I think the President wants to defer the deployment, and this Secretary of Defense does, which I strongly support. I hope in the meantime we do not squander too many funds. I hope we can have a good theater missile defense program without breaking the budget. I just wanted you to know, in case there was any doubt at all, that not everybody on this committee or in this Senate is a cheerleader for a national missile defense program which, when you talk about something that would break the budget without in my view increasing our security at all, that is it.

Senator STEVENS. Mr. Vice Chairman.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Mr. Chairman, I apologize for being late. I had a group of Hawaiians in the Close-Up Program. I had to discuss a few matters, and one of the matters I discussed, General, was the Pacific missile range.

Mr. Chairman, I would like to have my statement made a part of the record.

Senator STEVENS. Yes, Sir.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

General O'Neill, I would like to join our chairman in welcoming you here today. Over the past few years we have discussed your #1 priority, to deploy viable theater missile defense systems to defend against current threats to our combat forces. Now, there are some in Congress who appear to advocate shifting priorities from theater to national missile defense. And, while DOD has not changed its priorities, it has adopted a change in its philosophy regarding national missile defense which needs explanation.

I continue to believe that shifting priorities would be misguided.

General O'Neill, I am also concerned with the number of missile defense programs that the Defense Department is pursuing. I understand you are still planning on fielding THAAD, PAC–3, and the Navy lower tier; while you are also developing MEADS and the Navy upper tier.

Furthermore, it appears you are now moving more quickly down a path toward a national missile defense system without verifying a clear and near term threat. I cannot help but wonder if there is some duplication in these efforts.

I look forward to hearing your views on these and other matters this morning.

Senator INOUYE. I would like to thank the General for his many years of dedicated service to our country. I understand that you may be retiring this year, and this may be your last appearance before us in your official capacity. As noted by statements preceding mine, your job has been a very, very difficult one, but I must say that you have carried it out masterfully. It is not easy to have two major voices in Government singing from different hymn books. The issue that Senator Johnston has brought up is a very serious one as to whether we proceed from theater to national defenses, not only in terms of dollars, but also in terms of treaty obligations.

I have several questions I would like to ask when my turn comes, but once again may I thank you on behalf of many of us who appreciate your service.

Senator STEVENS. Yes, sir.

INTRODUCTION OF ASSOCIATES

General O'NEILL. Sir, I have a formal statement for the record I would like to submit, and I do have some opening remarks.

It is my privilege to appear before you today to represent the Department's BMD Program for fiscal year 1997. Before I begin my opening statement I want to take the opportunity to introduce you to our tri-Service team that executes the joint BMD Program, Rear Adm. Tim Hood, to my right rear, is the Navy Program Executive Officer for Theater Air Defense. Maj. Gen. John Hawley is the Air Force Director of Global Power Programs and Assistant Secretary for Acquisition. Col. (promotable) Dan Montgomery is the Army's newly appointed PEO for Missile Defense and has been on the job for less than 1 week. If we have any questions about the Army program I will try to take most of those questions myself. Together we represent the team that manages and executes the BMD Program. I may turn to one of these people later to answer specific questions.

As you are aware, the Department recently completed the BMD Program review, which was conducted by Dr. Paul Kaminski, the Under Secretary of Defense for Acquisition and Technology. The review established specific guidance for the BMD Program over the next 6 years. The most significant result of the review was a reaffirmation of the Department's fundamental priorities for missile defense, the first priority remaining defense against theater-class ballistic missiles which represent a threat that is here and now. The next priority is to develop the capability which can be rapidly deployed to defend against longer-range ballistic missiles that could threaten the United States. Finally, a technology-based program to support both TMD and NMD and provide advanced capabilities to round out the Department's BMD Program.

I believe the program is executable, and I support the allocation of BMD resources within the confines of a $2.8 billion budget. I recognize that while I advocate the importance of BMD programs at the Pentagon, I cannot speak for the relative priority of BMD within the overall Defense budget.

FISCAL YEAR 1997 BUDGET REQUEST

The total fiscal year 1997 budget request for BMD is $2.798 billion. We are requesting $1.799 billion for theater missile defense RDT&E, $263 million for TMD procurement efforts. The National Missile Defense Deployment Readiness Program is RDT&E $508 million, and the supporting technology program is $226 million. Of the total BMD budget request for fiscal year 1997, TMD accounts for 74 percent of the budget, national missile defense 18 percent, and support technology 8 percent.

Our top priority remains fielding improved theater missile defenses. The TMD Program continues to focus on three sequential efforts to bring capable defenses to the warfighter. First, we are putting rubber on the ramp today, we are putting improved ballistic missile defenses into the field today. Prime examples of this activity are deployments of Patriot PAC–2 guidance enhanced missiles. This is a system which provides four times the defended area and additional lethality over the PAC–2 missiles that were used in Desert Storm. We are providing an upgrade to the U.S. Marine Corps HAWK. This provides the Marine Corps with its only ability to defend against tactical ballistic missiles. Delivery of the upgraded PAC–2 and HAWK systems to operational units will continue during this fiscal year. These programs deliver real improvements in missile capability against short-range ballistic missile threats.

Just as important, we have deployed significant improvements to our ability to provide early warning information of ballistic missile launches to U.S. forces overseas. During Desert Storm this was done by an open telephone line. Now we do it digitally, and we can provide this information either through CINCSPACE in Colorado Springs through the Air Force's ALERT program or directly to the Joint Tactical Commander through a program being fielded by the U.S. Army. The Army has deployed two prototypical units to the CINC's in the field. Five of these units will be produced and fielded in fiscal years 1996 and 1997.

Following these near-term improvements, the Department will continue to develop and acquire a set of core theater missile defense programs. The core programs include the Patriot PAC–3, Navy area defense programs, and the Theater High Altitude Area Defense [THAAD] Program.

In order to ensure that we field the lower-tier theater missile defense systems as early as possible, the Department has increased investment in Patriot PAC–3 and the Navy area defense program.

The PAC–3 program was increased by $345 million, and the Navy area defense program by $186 million of the FYDP. These increases will allow us to begin PAC–3 deployments and Navy area defense user operational evaluation system deployments in fiscal years 1999 and 2000, respectively.

TMD PROGRAM REVIEW

During the program review, THAAD was reduced in scope while maintaining focus on achieving a user operational evaluation system [UOES] capability before the end of the decade. Prior to the program review, its funding profile was on the order of about $700 million per year. However, the review adjusted the program significantly, making out-year adjustments to our TMD investment. The Department decided to keep the UOES portion of the program on track, that is, for fiscal year 1998. However, the program review restructured the remainder of the THAAD effort, taking out about $1.9 billion of the $4.7 billion program.

The initial deployment will be with what the Department calls a UOES plus system, essentially a system that is based upon the UOES, in lieu of the previously planned full-capability objective THAAD. The UOES plus capability will meet the most critical THAAD requirements. It will concentrate on militarizing the UOES design and upgrading certain components, such as the seeker, the radar, and the BMC^3. The resulting THAAD program delays the production rampup and the FUE from 2 to 4 years.

With regard to the Navy Theater Wide Program, previously called Navy upper tier, it became clear last year that Congress was interested in a more aggressive development effort than the one offered by the Department. While the program review was in progress Congress appropriated a substantial increase, $170 million, to this program for fiscal year 1996. As a result the program review directed execution of a combined effort to both define the optimal interceptor concept and conduct a system technology demonstration.

In order to accomplish this program approach, the Department made a substantial increase to the funding profile. While starting out at a slow pace, we will add about $600 million through the FYDP to ramp up to a significant annual investment in Navy theater wide.

We will continue developing the medium extended air defense system, called MEADS, during fiscal year 1997. This system is different from other lower-tier missile defense system we have planned to deploy. While the Patriot PAC–3 is oriented in a particular threat direction, MEADS would provide 360 degrees of coverage. It would be a highly mobile system, designed to be deployed with our forward and maneuvering Marine and Army forces.

Later this month the United States, France, Germany, and Italy will sign a memo of understanding to jointly execute a program definition phase of the MEADS Program.

The joint TMD Program element represents tasks that are vital to the execution of joint BMD programs. These activities include architecture development, battle management, command, control, communications, test and evaluation, including the development and fabrication of targets, threat analysis and support, modeling and simulation support, lethality and phenomenology studies, and direct interface with the warfighter. While this may not seem to be as exciting a program element as building improved TMD interceptors, it is absolutely critical to the success of the U.S. TMD system. It is the glue that holds the architecture together and will ensure that the whole is greater than the sum of its parts.

In the area of cruise missile defense, BMDO continues to play an important role. In particular, both of the lower-tier systems operate in the same battle space and will have significant capability to counter the cruise missile threat. In addition, Dr. Kaminski has asked me within my national missile defense BMC^3 architecture to promote interoperability and evolution to a common BMC^3 system for both ballistic and cruise missile defense.

NATIONAL MISSILE DEFENSE GOAL

The Department's national missile defense goal is to position the United States to effectively respond to a strategic ballistic missile threat as it emerges. Based upon the program review, the NMD effort has been shifted from a technology readiness program to a deployment readiness program. The Department is sensitive to congressional interest in a shift to a more system-oriented approach which would provide for the balanced development of all elements necessary for an initial deployment. We are focusing our efforts on a program that is referred to as three plus three, a 3-year development and planning phase which, if necessary, could be followed by a 3-year system acquisition and deployment phase. That means that we could put a capability in the field in 2003, which responds directly to the draft authorization language that we saw in Congress earlier this year.

The Department is committed to the development phase, or the first 3 years, of this three plus three program. During this period the services and BMDO will develop and begin testing the elements of an initial national missile defense system. If at the end of these 3 years the ballistic missile threat to the United States warrants deployment of such a system, then in 3 more years that system could be deployed. Based upon this program an initial operational capability could be achieved by approximately 2003.

If the threat does not warrant deployment of an NMD system, the Department's three plus three program is designed to preserve the capability to deploy by continuing development of system elements and conducting a series of integrated tests. Over time these efforts would allow us to enhance both the technology base and the demonstrated systems performance.

System capability would grow through three avenues, incorporating advanced technology, increasing element performance, and adding additional elements. For example, the U.S. Air Force space and missile tracking system, called SMTS, would be integrated into our proposed architecture when it was available to enhance overall national missile defense performance. As I testified last year, the SMTS provides a vital role for both national missile defense and theater missile defense systems.

Funding for NMD has been shifted forward in the FYDP with allocations of an additional $100 million per year in fiscal years 1997 and 1998. This increase, coupled with the additional funds provided by Congress for national missile defense in 1996, will allow us to complete a reasonable, albeit high-risk, development program leading to the demonstration of an NMD system in an integrated system test at Kwajelein missile range in 1999. The NMD system we will demonstrate in 1999 includes a ground-based interceptor, ground-based radar, early warning sensors, and battle management, command, control, and communications. Depending on the threat to which we are responding when a deployment is required, these elements could be combined in a treaty compliant deployment or some other architecture. Deployment of an initial system would cost approximately $5 billion. The intrinsic strength of our concept for initial deployment is that the architecture has been specifically designed for evolutionary development of more robust and effective capability.

TECHNOLOGY PROGRAMS

As we move forward with our acquisition programs, the program demands on our BMD resources have continued. I am concerned that this has forced us to reduce our technology program. I would like to remind this committee that today's acquisition programs are possible only because significant past investments in technology have made them possible.

I believe that proper development of technologies to meet these critical requirements is essential to maintaining our program's technological edge. I want to stress that nowhere else in the Department are the basic or component BMD technology programs funded. Therefore, to ensure the continued flow of new solutions to meet evolving ballistic missile defense requirements and technology needs, I encourage the Congress to consider the BMD advanced technology program as a strategic investment. I believe this investment is critical to the continued success and viability of our BMD Program.

In closing, Mr. Chairman, the BMD Program today is a focused, prudent response to the real world. We are aggressively working to meet existing and emerging ballistic missile threats, first to our forces overseas, as well as our friends and allies, and second, the emerging missile threat to the United States.

I am dedicated to ensuring that we field improved TMD systems as soon as possible to provide real protection for our forward deployed forces, friends, and allies. We have made strong progress in developing and acquiring these improved systems. We have made this progress because of the strong and enduring executive-legislative consensus on theater missile defenses. This consensus is directly responsible for ensuring consistent program direction and stable allocation of resources to get the job done. This support must continue if we are to deliver on our collective promise to give the warfighter the protection he needs in a world with proliferating missile threats.

Mr. Chairman, I strongly endorse staying the course with the Department's NMD strategy. The program acknowledges that some potentially adversarial nations are interested in developing longer-range ballistic missiles which could strike the United States. The three plus three program could deploy an effective nationwide NMD system against a first generation Third World threat by the year 2003. However, if that threat develops sooner, we have options which could deploy an emergency NMD system at an earlier date.

I think it is critical that we work closely together on a bipartisan basis to form the consensus for NMD that the TMD Program has long enjoyed. Such a course is required if we are to succeed in maintaining program stability and coherence. The success of NMD depends upon our ability to reach this consensus.

On a more personal note, as many of you know, I have announced my intention to retire. Therefore, I would like to express at this time my deep appreciation for the wonderful working relationship I have enjoyed with the members and the staff of this committee. In particular, I would like to express my appreciation for the hard work of Steve Cortese and John Young on behalf of BMD issues.

PREPARED STATEMENT

Of course there is much more to be done, and we will need your help to make missile defense a reality. I trust the future Director of BMDO has the opportunity to work closely with you, Mr. Chairman, Senator Inouye, and all the members of this committee. That experience has been a great honor and a privilege for me.

Mr. Chairman, that concludes my statement. Thank you very much.

[The statement follows:]

Prepared Statement of Lt. Gen. Malcolm R. O'Neill

Mr. Chairman and Members of the Committee, it is my privilege to appear before you today to present the Department's Ballistic Missile Defense (BMD) program and budget for fiscal year 1997.

As you are aware, the Department has recently completed the BMD Program Review, which was conducted by Dr. Paul Kaminski the Under Secretary of Defense for Acquisition and Technology. The Program Review established specific guidance for the BMD program over the next several years. The most significant result of the review was a reaffirmation of the Department's fundamental priorities for missile defense. The first priority remains defense against theater-class ballistic missiles, which represent a threat that is here and now. This next priority is to develop the capability to defend against longer-range ballistic missiles that could threaten the U.S. after the turn of the century. Finally, technology base programs to support both TMD and NMD round out the Department's BMD program.

FISCAL YEAR 1997 PROGRAM AND BUDGET

The total fiscal year 1997 budget request for BMD is $2.798 billion. The Department is requesting $1.794 billion for Theater Missile Defense (TMD) RDT&E, and $268 million for TMD procurement efforts. The National Missile Defense (NMD) Deployment Readiness RDT&E program is budgeted for $508 million. Support Technologies budget request is for $226 million. Table A provides a detailed perspective on funding for fiscal years 1996 and 1997. Of the total BMD budget request for fiscal year 1997, TMD accounts for roughly 74 percent, NMD 18 percent and Technology 8 percent. This is presented on Table B.

TABLE A.—BALLISTIC MISSILE DEFENSE ORGANIZATION

[TY dollars in millions]

Program element	Program	Budget activity	Fiscal year— 1995 actual	Fiscal year— 1996 estimate	Fiscal year— 1997 estimate
	Procurement:				
0208861C	THAAD system procurement				
0208863C	HAWK procurement		$3.831	$5.046	$19.379
0208864C	TMD—BM/C³ procurement			31.996	19.256
0208865C	PAC–3 procurement		251.106	288.892	220.255
0208867C	Navy area wide		14.496	16.380	9.160
	Procurement total		269.433	342.314	268.050
	RDT&E:				
0602173C	Support technology/applied research	02	80.948	89.230	94.023
0603173C	Support technology—advanced technology development	03	126.582	125.537	132.319
0603861C	THAAD system—dem/val	04	622.377	554.755	269.000
0603863C	HAWK—dem/val	04	26.800	22.312	
0603864C	TMD—BM/C³—dem/val	04	19.893	23.160	
0603867C	Navy area wide—dem/val	04	139.834	187.258	60.000
0603868C	Navy theater wide—dem/val	04	75.000	194.565	58.171
0603869C	Corps SAM—dem/val	04	14.223	19.675	56.232
0603870C	BPI—dem/val	04	40.610		
0603871C	National missile defense—dem/val	04	387.105	720.750	508.437
0603872C	Joint theater missile defense—dem/val	04	408.447	421.185	520.111
0604861C	THAAD system—EMD	05			212.798
0604864C	TMD—BM/C³—EMD	05		13.885	
0604865C	PAC–3—EMD	05	275.450	359.008	376.632
0604866C	PAC–3 risk—EMD	05	69.328	18.967	
0604867C	Navy area wide—EMD	05		95.732	241.582
0605218C	Management	06	157.435	146.530	
	RDT&E total		2,444.032	2,992.549	2,529.305
	MILCON:				
0603871C	National missile defense		.323	.832	
0603872C	Joint theater missile defense			2.577	1.404
0604861C	THAAD system			13.600	
	MILCON total		.323	17.009	1.404
	BMDO total		2,713.788	3,351.872	2,798.759

TABLE B.—FISCAL YEAR 1997 BMDO FUNDING

[TY dollars in millions]

	Percent	Amount
TMD	74	$2,063.980
NMD	18	508.437
Support technology	8	226.342

As the Committee is aware, BMDO leads the Department of Defense team that executes the BMD program. My staff and I work closely and cooperatively with the Services as we seek to develop and acquire BMD systems. In this regard, BMDO interacts with the CINC's to ensure that as we develop BMD systems we respond to the specific needs of the warfighter. BMDO works closely with the Service Program Executive Officers (PEO's) to execute key BMD acquisition programs and put real capability into the hands of our military forces. Table C illustrates the important role the Military Services play in executing various segments of the BMD program. Using the total fiscal year 1997 dollars allocated to the Services and BMDO for BMD programs, you can see that the Army executes roughly 60 percent of the BMD programs, while BMDO executes 17 percent, the Navy 16 percent, the Air Force 5 percent, and other Defense entities 2 percent. The important lesson to draw from these percentages is that the BMD program is a joint program that requires well-coordinated management and execution. We strongly benefit from the Services' technical and programmatic expertise. Meanwhile, BMDO ensures that BMD programs are advocated during budget debates; prevents duplication of BMD program efforts across the Services; sponsors joint development of BMD systems; ensures focus on joint warfighter needs; and concentrates on near-term acquisition programs while judiciously investing in far term technologies. Of special significance, BMDO is responsible for designing the appropriate battle management, command, control and communications that will ensure BMD systems are fully integrated. I am pleased to report that this approach to BMD program management has succeeded in combining the strengths of the Services and BMDO, which enable us to develop and acquire improved BMD systems and further develop critical military technologies.

TABLE C.—FISCAL YEAR 1997 BMDO FUNDING BY EXECUTING AGENT

[TY dollars in millions]

	Percent	Amount
Army	60	$1,668.458
Navy	16	444.060
BMDO	17	477.865
Air Force	5	137.302
Other	2	71.074

Lastly, I would like to address a management issue that has been of keen interest to the Congress since the Fiscal Year 1993 Defense Authorization Act. This is especially important in the context of concerns about the size of overall BMD program management and the proper role of BMDO as the central manager of the Department's BMD program. Table D illustrates that BMDO has in fact complied with Congressional direction to maintain a lean management structure and reduce its use of support service contractors. The chart shows an overall reduction of 1,075 support service contractors, with a modest increase in government employees to ensure effective and efficient management of the program. This management structure allows BMDO to perform its responsibilities, as outlined in its charter and Congressional direction.

TABLE D.—BMDO WORK FORCE

[TY dollars in millions]

	Fiscal year—					Delta fiscal year 1992–96
	1992	1993	1994	1995	1996	
Manning:						
Civilian	143	143	243	290	300	157
Military	116	116	118	140	139	23
Contractor	1,700	1,200	750	650	625	−1,075
Total	1,959	1,459	1,111	1,080	1,064	−895

TABLE D.—BMDO WORK FORCE—Continued

[TY dollars in millions]

	Fiscal year—					Delta fiscal year 1992–96
	1992	1993	1994	1995	1996	
Funding:						
TMD	$1,163.1	$1,278.2	$1,808.2	$2,071.6	$2,367.0	$1,203.9
NMD	2,087.5	1,950.8	637.7	418.9	749.5	−1,338.0
Tech	685.4	480.2	281.7	223.3	229.9	−455.5
Total	3,936.0	3,709.2	2,727.6	2,713.8	3,346.4	−589.6

THEATER MISSILE DEFENSE: PRIORITY TO FIELD IMPROVED DEFENSES

The TMD program continues to focus on three sequential efforts to bring increasingly capable defenses to the warfighter. First, we have completed our near-term improvements to existing air and missile defense systems to allow them to defend against short-range tactical ballistic missiles. Prime examples of this activity are deployments of Patriot PAC–2 Guidance Enhanced Missiles (GEM) and U.S. Marine Corps HAWK Upgrades. Our tests have shown that a modified TPS–59 radar combined with the HAWK missile system is effective against short range ballistic missiles. Delivery of the upgraded systems to operational Marine Corps units will continue during this fiscal year. This program delivers a real military capability against the short range missile threat for a modest investment. Last year, we began producing the PAC–2 GEM system for the Army as the principal improvement to our existing TMD capability until the PAC–3 system begins deployment in fiscal year 1999. The PAC–2 GEM improvements increase the PATRIOT's defended area and improves its lethality over its capabilities during Operation Desert Storm. The GEM's improved seeker performance allows the interceptor to more precisely locate the target missile. Meanwhile, a faster reacting warhead fuze contributes to a more optimal dispersal of warhead fragments on the target. Just as important, we have deployed significant improvements to our ability to provide early warning information of ballistic missile launches to U.S. forces overseas. Last year the Air Force activated the Attack and Launch Early Reporting to Theater (ALERT) squadron with the BMDO-developed TALON SHIELD system at Falcon Air Force Base, Colorado. The Joint Tactical Ground System (JTAGS), also developed by BMDO, is a complementary tactical mobile DSP ground station for use in the theater. The Army has deployed two prototypical units, one in Germany and one in South Korea, to support the warfighter. Five of these units will be produced and fielded in fiscal years 1996 and 1997.

Following these and other near-term improvements, the Department will continue efforts to develop and acquire a set of "core" TMD programs. The Department's Program Review established the TMD lower-tier systems—the PAC–3 and Navy Area Defense programs—as the first priority to ensure we enhance our defensive capabilities against short- to medium-range ballistic missiles as quickly as possible. We will do this by building on existing infrastructure and prior investments in ongoing programs; expanding the capabilities of the PATRIOT and AEGIS/Standard Missile systems; adding funds to deal with cost increases and development delays; exploring a concept for cooperative development with our Allies for a Medium Extended Air Defense System (MEADS); and improving our Battle Management, Command, Control and Communications (BMC^3) capability.

Neither the PAC–3 nor the Navy Area Defense programs involve show-stopping technical challenges at this point. Rather, they involve engineering challenges. Nonetheless, the key issue is a matter of execution of the programs to complete the development and to field these two systems. Our task is to ensure that we have a robust program to proceed with both these systems and to field this important capability as early as possible. Therefore, the Department increased the investment in PAC–3 and Navy Area Defense to ensure that they are adequately funded to guarantee timely delivery to the warfighter. The PAC–3 program was increased by $345 million and the Navy Area Defense program by $186 million over the Future Years Defense Plan (FYDP) through 1997–2001. These increases will allow us to begin both PAC–3 deployments and Navy Area Defense User Operational Evaluation System (UOES) deployments in fiscal year 1999. The mix of PAC–3 and Navy Area Defense interceptors eventually acquired to perform the lower-tier mission will depend upon their relative prices, performance and the status of the missile threat.

PATRIOT ADVANCED CAPABILITY–3

The PAC–3 system will represent a significant upgrade to an existing air and missile defense system to specifically handle stressing theater-class ballistic missile threats. The PAC–3 system, using hit-to-kill interceptors, will be highly lethal against ballistic missiles including those with weapons of mass destruction. Improvements to the system will result in increased firepower and lethality; increased battlespace and range; enhanced battlefield awareness; and improved discrimination performance. These critical enhancements will be achieved by improvements to the missile, as well as the radar and communications systems. Operational improvements, such as remote launch operations, will also increase the battlespace and range of the PAC–3 system. These enhancements will mark a substantial improvement over our PATRIOT TMD capabilities during Operation Desert Storm.

The PAC–3 program is restructured to reduce program risk, adjust for schedule delays, and improve system performance by extending the engineering and manufacturing development (EMD) phase of the program by up to ten months; rephasing the missile and radar procurement; upgrading four launchers per battery with Enhanced Launcher Electronics Systems; and extending the battery's remote launch capability. The Program Review also visited the issue of the number of PAC–3 battalions to be fielded. The original plan was to deploy nine battalions. However, the review decided to field six battalions, while deferring fully upgrading the three additional battalions pending the completion of the MEADS program definition/validation phase. PAC–3 low rate initial production (LRIP) will begin the first quarter of fiscal year 1998, with the First Unit Equipped (FUE) date planned for the fourth quarter of fiscal year 1999.

NAVY AREA DEFENSE

As the Committee is aware, BMDO and the Navy have been working cooperatively to develop an enhancement to the AEGIS/Standard Missile air defense system to provide a tactical ballistic missile defense capability from the sea that is comparable to the defense provided by PAC–3. This represents a critical TMD capability that can take advantage of the strength and presence of our naval forces, and build upon the existing AEGIS/Standard Missile infrastructure. Naval vessels that are routinely deployed worldwide are currently in potential threat areas or can be rapidly redirected or repositioned. A Naval TMD capability can be in place within a region of conflict to provide TMD protection for land-based assets before hostilities erupt or before land-based defenses can be transported into the theater. Our Navy Area Defense program focuses on modifications to enable tactical ballistic missile detection, tracking and engagement with a modified Standard Missile 2, Block IV.

We will use the $45 million added by Congress in the Fiscal Year 1996 Defense Authorization and Appropriations Bills to compensate for system engineering and design efforts not fully funded in fiscal year 1995. The Program Review added $186 million to Navy Area Defense through the FYDP in order to make it fully executable on a moderate risk profile. These funds will cover delays in risk reduction flights and adjusted cost estimates for test targets and lethality efforts. In turn, this will minimize the delays in the EMD program and LRIP missile procurement.

Our plan is to field a UOES capability in fiscal year 1999 and an FUE in fiscal year 2001. Thereafter, operational units will use the legacy UOES system for continued testing and as a contingency warfighting capability.

THEATER HIGH ALTITUDE AREA DEFENSE

THAAD is the more mature upper-tier system. During the Program Review, the THAAD program was adjusted to maintain track on an early deployment of a UOES capability before the end of the decade. Prior to the Program Review, its funding profile was on the order of about $700 million per year. However, it adjusted the program significantly, making outyear adjustments to our investment in the program. The Department decided to keep the UOES portion of the program on track, which will entail fielding about 40 THAAD missiles and the GBR by fiscal year 1999. However, the Program Review restructured the rest of the program for the objective THAAD system, taking about $1.9 billion out of the $4.7 billion that was programmed through the FYDP.

The THAAD System is the only core TMD system capable of engaging the full spectrum of theater-class ballistic missile threats. The THAAD system provides extended coverage for a greater diversity and dispersion of forces or the capability to protect population centers. But the principal additional capability provided by this important system is the ability to deal with longer range theater missile threats as they begin to evolve and emerge over time. Using THAAD as an overlay also reduces the number of missiles that the lower-tier systems must engage. The THAAD system will provide a unique capability for wide area defense against tactical ballistic missiles at higher altitudes and more attempted intercepts at longer ranges (a "shoot-look-shoot" capability) with a lethal hit-to-kill interceptor. This is a mission the PAC–3 and Navy Area Defense systems cannot perform. The THAAD system consists of the TMD Ground-based Radar (GBR) surveillance and tracking sensor, interceptors, launchers, and BMC^3.

The initial deployment will be with what the Department calls a "UOES plus" system, essentially an enhanced version of the UOES system, in lieu of the previously planned full-capability objective system. This improved UOES capability will meet the most critical THAAD requirements. It will concentrate on militarizing the UOES design and upgrading certain components, such as the infrared seeker, radar upgrades and BMC^3 improvements. The resulting THAAD program delays the production ramp-up and the FUE by over two years.

In fiscal year 1997, the THAAD program will conclude its demonstration/validation flight tests. These tests are designed to resolve technical issues and demonstrate the system's capabilities. So far, BMDO and the Army have conducted four flight tests. The next flight test, which will attempt an intercept of a theater-class ballistic missile target, is scheduled to take place within the next few days.

NAVY THEATER-WIDE

The Navy Theater Wide system will bring a new, complementary capability to our other core programs by providing ascent phase coverage where the mobility of AEGIS ships allows such coverage. In addition, the system will add the same kind of terminal coverage capability as the THAAD system, providing long range coverage and wide area protection. As in the case with the lower-tier Navy Area Defense system, the Navy Theater Wide system will operate free of sovereignty or host nation support issues, free to be deployed instantly whenever our national interest requires.

The Navy Theater Wide system is the least mature of all our systems, not only of the upper-tier, but all the TMD systems taken together. Prior to the Department's review, we were proposing funding this program in our fiscal year 1996 and 1997 budgets at a very low level to mature the key enabling technologies. This was at a level of about $30 million per year. During the review, however, Congress authorized and appropriated a substantial increase—$170 million—to this program. The Program Review decided to spend all the appropriated funds for fiscal year 1996 over two years and not begin a full commitment to the Navy Theater Wide program at this time. A more deliberate pace was selected, which will allow us to proceed to a system-level intercept flight test using a combination of the AEGIS Weapon System, the Standard Missile and a kinetic kill intercept vehicle.

In parallel, the program is structured to conduct concept definition studies to determine what is the best configuration with which to proceed. There is much synergism among the technologies needed for a robust Navy Theater Wide system, including seeker technologies being developed in the National Missile Defense program. The Program Review determined that the posture for this program is to conduct a technology demonstration, leveraging maturing technologies and complete a concept definition study to confirm the interceptor configuration for the system. In order to accomplish this program approach, the Department made a substantial increase to the funding profile. While starting out at a slow pace, we will add about $600 million through the FYDP to ramp up to a significant annual investment in Navy Theater Wide.

MEDIUM EXTENDED AIR DEFENSE SYSTEM (MEADS)

We will continue developing the MEADS system during fiscal year 1997. This system is different from the other lower-tier missile defense systems we are planning to deploy. For example, while the PAC–3 system is oriented in a particular threat direction, MEADS provides 360 degrees of coverage. It will be a highly mobile system and designed to be deployed with our forward and maneuvering forces. In this regard, MEADS is designed to respond to an important operational requirement by providing protection for the combat maneuver force against shorter-range theater-class ballistic missiles, advanced cruise missiles, and other air-breathing threats as well. This system will replace HAWK, and also would ultimately replace the PATRIOT system. As I noted earlier, the Department is deferring fully upgrading three PATRIOT battalions pending a decision on development and deployment of MEADS.

Later this month, the U.S., France, Germany and Italy will sign a Memorandum of Understanding (MOU) to proceed jointly to develop the MEADS system. MEADS consolidates and harmonizes the efforts of NATO allies who had contemplated country-unique systems, such as the TLVS in Germany, Aster/Arabel in France and Italy, and Corps SAM for the U.S. The agreement to pursue MEADS represents not only a new path for transatlantic armaments cooperation, but also a growing recognition of the risks to alliance security posed by the proliferation of weapons of mass destruction and their delivery systems. The cost share for the MEADS program throughout the Program Definition and Validation (PDV) phase (the U.S. equivalent of demonstration/validation) is 50/20/20/10 among the U.S., France, Germany, and Italy, respectively. The Department added $85 million over the FYDP to fund the U.S. share of the cooperative PDV phase, which concludes in fiscal year 1999. This increase brings our funding to a rate of about $30 million per year and fulfills our international commitments at this time. We must make a decision by fiscal year 1998 on the program's future direction.

Two U.S. companies, Lockheed Martin and a joint venture between Hughes Aircraft and Raytheon, have joined with their European counterparts (Daimler-Benz Aerospace, and Siemans from Germany; Aerospatiale and Thompson from France; and Alenia from Italy) to form two international teams that will execute the PDV phase of the program. A single international team will be chosen to pursue Design and Development (EMD in the U.S.), with an in-service date scheduled for about 2005.

JOINT TMD PROGRAM ELEMENT

Joint TMD activities represent programs and tasks that are vital to the execution of joint BMD programs. These activities have been grouped together because they provide direct support across BMD acquisition programs which could not be executed without this important support. Therefore, we introduce greater efficiency into the programs because they accomplish an effort once which otherwise would have to be separately accomplished for each Service element. These activities include architecture development and battle management, command, control, communications, and intelligence; test and evaluation support, including the development and fabrication of targets; threat analysis and support; model and simulation support; lethality and phenomenology studies and analysis; and direct interface with the warfighter. Unfortunately, we did not adequately explain the importance of this key program element last year and sustained a significant and painful reduction to its budget. This significantly reduced our ability to support the core TMD acquisition programs. In some instances, critical target development and lethality analysis had to be funded by the core programs themselves. These unexpected expenditures contributed to some of the executability issues identified by the BMD Program Review.

Therefore, I would like to outline just a few critical activities that are funded in the Joint TMD account. Interoperability in BMC^{3}I is essential for joint TMD operations. Accordingly, BMDO takes an aggressive lead to establish an architecture that all the Services can build upon and is actively pursuing three thrusts to ensure an effective and joint BMC^{3}I for TMD. The three thrusts are: improving early warning and dissemination, ensuring communications interoperability, and upgrading command and control centers for TMD functions. The primary goal is to provide the warfighter with an integrated TMD capability by building-in the interoperability and flexibility to satisfy a wide range of threats and scenarios. From its joint perspective, BMDO oversees the various independent weapon systems developments and provides guidance, standards, equipment and system integration and analysis to integrate the multitude of sensors, interceptors, and tactical command centers into a joint theater-wide TMD architecture. While this may not seem to be as exciting as building improved TMD interceptors, it is absolutely critical to the success of the U.S. TMD system. It is the glue that holds the architecture together and will ensure that the whole is greater than the sum of its parts.

In addition to BMC^{3}I, the other activities in this program element strongly support the TMD system and key acquisition programs. For example, BMDO test and evaluation responsibilities include oversight of major defense acquisition program (MDAP) testing, sponsoring and conducting TMD family of systems integration and interoperability tests, development of common targets, and providing for range and ground tests. My organization sponsors and conducts system integration tests to ensure inter- and intra-Service operability and interoperability of the TMD family of systems with external systems. In addition, this program element funds a critical series of interactions with the warfighting CINC's. The CINC's TMD Assessment program consists of operational exercises, wargames, and Warfare Analysis Laboratory Exercises (WALEX). Our WALEX programs, for instance, allow senior military leadership insights into TMD operational planning and employment. The CINC TMD Assessments program enhances two-way communication between BMDO as the developer and the warfighting CINC's who are the users of TMD systems. These exercises allow the CINC's to assess their TMD capabilities and shortfalls so they may refine and articulate their TMD requirements, and improve their current and future TMD operational capabilities. The program facilitates the development and refinement of TMD doctrine and concepts of operations as part of the CINC's and Joint Staff's overall theater operations plans. We need to fully fund this important program element if we are to deliver on our promise of improved TMD systems to the warfighter.

U.S.-ISRAEL ARROW PROGRAM

Israel has been involved in U.S. missile defense programs since 1987, when both countries signed a Memorandum of Understanding on BMD participation. Israel's participation includes architecture studies, technology development and experiments, examination of boost-phase intercept concepts, and the development of the Arrow interceptor missile. As the Secretary of Defense has noted recently, the Arrow program advances our shared objective of working together to develop effective ways to counter the threat posed by ballistic missiles in the Middle East and elsewhere. An agreement with the Israeli Ministry of Defense to continue involvement in the development of the Arrow weapon system will be ready for signature between both our countries in the near future. The Arrow Deployability Program, as it is called, involves a total commitment of $500 million over the next five years, with $300 million contributed by Israel and $200 million from the United States. This will allow for the integration of the jointly developed Arrow interceptor with the Israeli developed fire control radar, launch control center and battle management center. I am particularly pleased to report that on February 20th, the Arrow II missile completed its second successful flight test, which will lead soon to the intercept of a target tactical ballistic missile.

System integration efforts will lead to a UOES-like Arrow system projected for fielding in fiscal year 1998. The U.S. continues to derive valuable data and experience through our participation in the Arrow program. In particular, we are gaining important experience in establishing interoperability with U.S. TMD systems and the Arrow weapon system. The agreement we have on participation in the Arrow program will be revisited in three years to evaluate the synergies between Arrow and U.S. TMD programs and to ensure that worthwhile benefits continue to flow to the U.S. programs. It is important to note that this cooperative program is also funded within the Joint TMD program element.

CRUISE MISSILE DEFENSE

Many TMD sensors, BMC^3, and weapons also have an effective capability to counter the growing land-attack cruise missile threat. In particular, the lower-tier PAC–3, Navy Area Defense, and MEADS systems operate in the same battlespace and will have significant capability against the cruise missile threat. In addition, the NMD BMC^3 architecture will be designed to promote interoperability and evolution to a common BMC^3 system for ballistic and cruise missile defense.

The Department also has a number of initiatives outside the BMD program to improve the ability of U.S. forces to detect and defeat cruise missiles "in theater" or launched against the United States. These initiatives include advanced technology sensors to detect low observable cruise missiles; upgrades to existing airborne platforms to improve beyond the horizon detection capability against cruise missiles; and upgrades to existing missile interceptor systems.

NATIONAL MISSILE DEFENSE

The Department's NMD goal is to position the U.S. to effectively respond to a strategic ballistic missile threat, as it emerges. Based upon the Program Review, the NMD effort has been shifted from a technology readiness to a deployment readiness program. Following the 1993 Bottom Up Review, the NMD program focused on maturing the most challenging technical elements—often called the "long poles"—of the NMD system. The Department is sensitive to Congressional interest in a shift to a more system-oriented approach which would provide for the balanced development of all elements necessary for the initial deployment. We are focusing our efforts on a program that is referred to as "3 plus 3"—a three year development and planning phase which, if necessary, could be followed by a three year system acquisition and deployment phase.

The Department is committed to the development phase—or the first "three" years—of this 3 plus 3 program. During this period BMDO and the Services will develop and begin testing the elements of an initial NMD system. If, at the end of those three years of NMD development efforts, the ballistic missile threat to the United States warrants the deployment of an NMD system, then in another three years that system could be deployed. Based on this program an initial operational capability could be achieved in approximately six years, by the year 2003.

If, on the other hand, we reach 1999 and the threat does not warrant deployment of an NMD system, the Department's 3 plus 3 program is designed to preserve the capability to deploy an NMD system within three years by continuing development of the system elements and conducting a series of integrated tests. Over time, these efforts would allow us to enhance both the technology base and the demonstrated systems performance. Therefore, we can make a more informed deployment decision and, when the threat materializes, be in a position to deploy a more capable NMD system. The system capability would grow through three avenues: incorporating advanced technology, increasing element performance and adding additional elements. We would continue to improve system effectiveness by incorporating advanced technologies as they mature in our technology base program. As we continue to test we will identify and incorporate improved components to the system elements, such as improving the kill vehicle, enhancing its lethality, or refining the system software. When appropriate, we will add additional elements to the defense. For example, the Space & Missile Tracking System (SMTS), which is being developed separately by the U.S. Air Force, would be integrated into our proposed architecture as soon as it was available to enhance overall NMD performance. As I testified last year, the SMTS system provides a vital role for both NMD and TMD systems. The low earth orbit SMTS is an integral part of a potential deployment of an objective NMD system. While we are enhancing the NMD system's capability we will address production and deployment lead-time issues to reduce the time required to field the system when a deployment decision is made.

Funding for NMD has been shifted forward in the FYDP with allocations of about an additional $100 million per year in fiscal years 1997 and 1998. This increase, coupled with the additional funds provided by Congress for NMD in fiscal year 1996, will allow us to complete a reasonable, albeit high-risk, development program leading to the demonstration of the NMD system in an Integrated System Test in 1999.

The NMD system we will demonstrate in 1999 includes four fundamental building blocks used by all of the proposed NMD architectures: the interceptor; ground-based radar; upgraded early warning sensors; and battle management, command, control and communications (BM/C^3). Depending on the threat to which we are responding when a deployment is required, these elements could be combined in a treaty compliant deployment or some other architecture.

The Ground Based Interceptor is the weapon element of NMD. It consists of an exoatmospheric kill vehicle (EKV) launched by a fixed, land-based booster. We have made significant progress over the past few years to develop an EKV which can perform hit-to-kill intercepts of strategic reentry vehicles in the midcourse phase of their trajectory. Rockwell and Hughes are under contract to develop and test competing EKV designs which will be evaluated in a series of flights starting later this year. Following intercept flights in 1998, a single contractor will be selected for the initial system. The EKV flights, which start this year, will be conducted using the Payload Launch Vehicle as a surrogate for a dedicated booster. Several options are being examined for the GBI booster, including Minuteman III, and other modified, off-the-shelf, boosters.

The NMD Ground-based radar is an X-band, phased array radar that leverages heavily off developments achieved by the THAAD GBR program. By taking advantage of the work already completed in the TMD arena, BMDO has been able to reduce the expected development cost of the GBR by approximately $70 million. In 1998 the GBR prototype, developed by Raytheon, will be fabricated at the U.S. Kwajalein Atoll to begin testing to resolve critical issues related to discrimination, target object map, kill assessment, and electromechanical scan.

The Upgraded Early Warning Radar (UEWR) program is designed to answer fundamental questions concerning how UEWR's can contribute to National Missile Defense while completing the initial development. We have already completed two years of successful demonstrations, showing how software modifications can increase the radars' detection range, sensitivity, and accuracy. Our plan is to award a contract in early 1997 for the design and test of a software demonstrator. This tool will be used to prepare specifications for the early warning radars' upgrades necessary if there is a decision to deploy an NMD system before SMTS is available.

The National Missile Defense Battle Management, Command, Control, and Communications (BMC^3) program provides the capability for the designated operational Commander to plan, coordinate, direct, and control NMD weapons and sensors. The NMD BMC^3 development program uses an open system architecture and the best industry practices for development of software that will have the capability to support NMD integrated ground and flight tests. The BMC^3 product, which will include cruise missile defense consideration, leverages off previous NMD developments and the BMC^3 systems being developed for the TMD program.

Over the FYDP, the Department has budgeted those funds required for a deployment readiness effort, or roughly $2.8 billion. Deployment of an initial system would cost approximately $5 billion more. Our analysis shows that such a deployment would provide an effective defense against first generation rogue ballistic missile threats to the U.S. The intrinsic strength of our concept for an initial deployment is that the architecture has been specifically designed for evolutionary development of a more robust and effective NMD system over time; it can grow to counter an increasingly sophisticated threat, if required.

As I mentioned earlier, one of the significant enhancements to the NMD system will occur when the SMTS becomes available. This system, funded and developed as part of the Space-based Infrared System (SBIRS) program, provides 360 degree over the horizon sensing throughout the threat trajectory which greatly increases the system performance against all of the potential threats.

The NMD development program we are planning will continue to comply with all treaty obligations. As the 3 plus 3 NMD program progresses, we will study many different technologies and architectures. We will review these options from every perspective including cost, operational effectiveness, and existing treaty obligations.

POTENTIAL EARLY DEPLOYMENT OPTIONS

The 3 plus 3 concept I have described for NMD has its genesis in last year's efforts by the BMDO Tiger Team, which investigated how we could accelerate the development and deployment of an NMD system to respond to more rapidly emerging threats to the United States. The Tiger Team, estimating time scales of approximately four years to deployment, described several opportunities and the associated challenges to deploy an interim NMD capability to deal with rudimentary Third World threats to U.S. territory. In this regard, the BMDO Tiger Team was an important and valuable endeavor. Nonetheless, it is important to note that the opportunities they described are "off ramps" from efforts to develop and deploy an objective and highly capable NMD system, and if not carefully evaluated, could become technological "cul de sacs." Simply put, near-term options might not field an initial system that could be evolved to a more effective defense. The tradeoff we must consider is between earlier deployment of a less capable system, or later deployments of increasingly effective defenses for the U.S. homeland. Our 3 plus 3 approach is designed to provide an early deployment opportunity which can evolve robustly with the threat and operational needs.

As I mentioned earlier, and as a by-product of the Tiger Team exercise, both the Air Force and Army provided their recommendations on how to develop and deploy an NMD system. The Air Force and Army, in particular, have proposed alternatives which are very similar to, and with immediate commitment to deployment could allow earlier maturation than, the Department's 3 plus 3 program. In either case, a minimum of approximately four years to a capability was estimated. Consideration of such alternatives to the 3 plus 3 program has strengthened the commitment to deployment readiness within the Department. When it literally could come down to the effective defense of the nation against an accidental, unauthorized or limited ballistic missile attack, it is critical for us to fully assess all the options before us. The Army, Navy and Air Force remain critical members of our team and are vigorously and efficiently developing those portions of our 3 plus 3 architecture to which they are assigned.

The Army and Air Force proposals are very similar to BMDO's plans in that they use the same fundamental building blocks: ground-based interceptors, ground-based radars, upgraded early warning radars, and BM/C^3. The differences come in the specific design of these elements and the way they are eventually combined architecturally. The Air Force's proposal is based on the belief that significant benefits can be achieved by leveraging off the deployed Minuteman III infrastructure. They propose using the Minuteman III booster to launch the kill vehicle, which could be either the EKV already described or a somewhat simpler kill vehicle which could be developed by the Air Force. The Minuteman III concept would allow the use of existing launch silos and some of the existing BM/C^3 network, potentially reducing the total cost. To provide the necessary sensor data, the Air Force proposes to augment the coverage provided by Upgraded Early Warning Radars.

The Army suggests a commercial booster developed by combining existing "off-the-shelf" booster stages to launch the EKV. These interceptors would be deployed in the existing silos of the old Safeguard complex near Grand Forks, North Dakota.

In order to enhance radar coverage, the Army proposes also to augment early warning radars and recommends using technology from the GBR.

Each of these architectures has merit, but they also have potential shortcomings. Early deployment options are capable of defending against only the most simple ballistic missile threats—that is a few warheads atop first generation ICBM's. BMDO and CINCSPACE are engaged in the assessment of the existing and future threats, as defined in the National Intelligence Estimate and the NMD Threat Assessment Report. The joint endeavor with CINCSPACE includes an aggressive effort to specify the operational requirements, including effectiveness and coverage, and evaluate them against architectural options and system level developmental requirements. Two major efforts for this evaluation include active Command and Control simulations, which combine architectural options, specific threats, and concepts of operations in a simulated real-world environment; and a cooperative effort in the development of the Battle Management and Command, Control and Communications (BMC^3) element. The NMD architecture will be specifically tailored to meet the current and emerging threats.

In addition to such operational concerns, alternative architectures still need to be reviewed from the perspective of our treaty obligations. For instance, the proposals call for the use of additional early warning radars. One alternative also would use existing Minuteman III assets (including silos) as the boosters for the NMD kill vehicles. This raises both ABM and START Treaty issues.

I think it is important for the Congress to be aware of these and other potential architectures, including both operational concepts and arms control impacts when considering these alternative architectures. While I acknowledge that there are potential limitations, I still believe there is strong merit to considering them.

If we identify an emerging ballistic missile threat to the U.S., I would like to have the best possible deployment options available to the President and Congress. I want to reiterate, when we address the defense of the American People against even a rudimentary Third World ballistic missile threat, I want to make sure we have every feasible opportunity to effectively defeat that threat as soon as possible.

I strongly endorse staying the course with the Department's current NMD strategy, while continuing to protect our earlier deployment options. I think it is the prudent course of action. Following three more years of system development, we will reach the point where a low risk decision could be made to deploy an NMD system, if the threat warrants. If not, we will be prepared to continue development of a system that could still be deployed quickly in response to a threat but would ensure a more effective defensive system. The 3 plus 3 program is designed with the flexibility to allow it to be accelerated if the threat warrants and additional resources are applied. As it is currently structured it provides the capability to deploy with an IOC in 2003, the date Congress desired. At this time the specific deployment architecture is not an issue which must be decided. What is needed is program stability. Completing definition of a system of this complexity in three years is a challenge—we cannot afford to keep starting over to develop something new. I urge you to accept our program and to provide sufficient resources to complete the deployment readiness phase of the 3 plus 3 program. Then, if it is necessary, we will be prepared to defend all of America against limited missile attacks by 2003.

BMD TECHNOLOGY PROGRAM

As we move forward with our acquisition programs, the programmatic demands on our BMD resources have continued and the number of Congressional earmarks has risen. I am concerned that because of this we have been forced to reduce our technology program. I would like to remind the Committee that today's acquisition programs are possible only because significant past investments in BMD technology made them possible. For instance, development of the "hit-to-kill" interceptor technology, now adopted by PAC–3 and THAAD, evolved from the SDIO's Flexible Lightweight Agile Guidance Experiment (FLAGE) technology demonstration program in the mid-1980's. Technologies making the infrared sensors and data processors possible for the upcoming SMTS satellite system have been developed over the past decade through BMDO-sponsored research and development. That includes infrared detectors, cryogenic coolers, optical hardware and radiation-hardened microelectronics.

Just as these past technology investments helped enable current TMD acquisition programs, today's technology investments will prepare us for evolving, proliferating threats. Evolving threats, based on reasonable extrapolations of credible countermeasures, set the pace and direction of today's advanced technology program. As a result, next generation TMD and NMD systems will be able to draw from a set of readily available technology solutions.

We have organized the technology program to balance across several variables, including TMD and NMD applications, and technology development and demonstrations. In this regard, we have identified the most critical technology requirements for the program and are pursuing them within the constraints of the funding available for the technology program. These unique technology requirements include: sensor and seeker component programs to improve the range and resolution of missile defense sensor systems and interceptor seekers; interceptor component programs to develop faster, smarter, more capable interceptors; BMC^3 high-data and low-error advanced component technologies needed in automated decision aids, data fusion, adaptive defense operations, and secure communications; phenomenological research to determine how the threat, environment and defensive systems will behave and interact during an engagement; and research into advanced concepts, such as directed energy systems, that are capable of global coverage (i.e., accomplishing both national and multiple-theater missile defense missions), and that can engage targets in the boost-phase.

I believe that proper development of technologies to meet these critical requirements is essential to maintaining our program's technological edge. Nowhere else in the Department are the basic or component BMD technology programs funded. Therefore, to ensure the continued flow of new solutions to meet evolving ballistic missile defense requirements and technology needs, I encourage the Congress to consider the BMD advanced technology program as a strategic investment. I will make sure the technology program maintains a clear focus and that its products remain relevant to the BMD mission and are of high quality. I believe this investment is critical to the continued success and viability of our BMD program.

CONCLUSION

The BMD program today is a focused, prudent response to the real world. We are aggressively working to meet existing and emerging ballistic missile threats, first to our forces overseas, as well as our friends and allies; and secondly, the emerging missile threat to the United States.

I am dedicated to ensuring that we field improved TMD systems as soon as possible to provide real protection for our men and women as they go into battle to defend our national security interests. I believe we have made strong progress in developing and acquiring these improved systems. I am particularly proud that the lower-tier TMD systems will very soon be in the hands of the warfighter. We have made this progress because of the strong and enduring Executive-Legislative consensus on Theater Missile Defenses. This consensus is directly responsible for ensuring consistent program direction and the stable allocation of resources to get the job done. This support must continue if we are to deliver on our collective promise to give the warfighter the protection he needs in a world with proliferating missile threats.

As I have testified today, the Department has structured a deployment readiness program for NMD that is prudent and flexible. That program acknowledges that some potentially adversarial nations are interested in developing longer range ballistic missiles which could strike the United States. The 3 plus 3 program could deploy an effective nationwide NMD system against a first generation Third World threat by the year 2003. However, if that threat develops sooner, we have options which could deploy an emergency NMD system at an earlier date. Given the uncertainty of the ballistic missile threat to the U.S., it is prudent for the Department to proceed with the 3 plus 3 program. However, I think it is critical that we work closely together on a bipartisan basis to form the consensus for NMD that the TMD program has long enjoyed. Such a course is required if we are to succeed in maintaining program stability and coherence. The success of NMD depends on our ability to reach this consensus.

On a more personal note, as many of you are aware, I have announced my intention to retire. Therefore, I would like to express my deep appreciation for the wonderful working relationship I have enjoyed with the Members and staff of this Committee. For two reasons I have persisted in my plans to retire this year. First, for the first time in 33 years, my family has asked that I slow down just a bit. Lastly, I truly feel that this is a propitious time for the program to make a leadership change. There is now as much detailed understanding of the missile defense program on this side of the river as there is on the other. The Administration is committed to missile defense, with the only major disagreement with Congress in terms of how much and how soon, rather than missile defense, yes or no. Of course, there is much more to be done and we will need your help to make missile defense a reality. I hope the future Director of BMDO has the opportunity to work closely with you, Mr. Chairman, Senator Inouye and all the Members of this Committee. That experience has been a great honor and privilege for me. Lastly, I want to express my deep gratitude to the Committee's professional staff, in particular Mr. Steve Cortese and Mr. John Young, for their tireless efforts on behalf of the program.

Thank you, Mr. Chairman. I look forward to continuing to work with the Committee, as well as the entire Congress, to make highly effective and affordable missile defenses a reality. Mr. Chairman that completes my statement. I look forward to addressing the Committee's questions.

U.S. ARMY BMD WORK FORCE

[TY dollars in millions]

	Fiscal year—					Delta fiscal year 1992–96
	1992 total (100/0)[1]	1993 total (42/58)	1994 total (41/59)	1995 total (43/57)	1996 total (42/58)	
	Manning					
Civilian	1,133	1,543	1,451	1,291	1,153	20
Military	97	114	113	87	90	−7
Contractor[2]	432	853	747	876	770	338
Total	1,662	2,510	2,311	2,254	2,013	351
	Funding					
	(100/0)[1]	(39/61)	(27/73)	(27/73)	(19/81)	
TMD	$793.4	$947.5	$1,334.1	$1,557.6	$1,477.6	$684.2
NMD	862.9	668.8	270.7	248.7	451.8	−411.1
Tech	180.9	122.1	49.2	44.6	42.0	−138.9
Total	1,837.2	1,738.4	1,654.0	1,850.9	1,971.4	134.2

[1] Percent SSDC/percent PEO.

[2] Support contractors only.

ARMY'S SHARE OF BMDO FUNDING

[Execution percent of BMDO program]

	Fiscal year—					
	1992	1993	1994	1995	1996	1997
Total Army as a percent of BMDO funding	46	47	60	68	59	60
Other Army as a percent of BMDO funding	....	28	44	53	48	47
SSDC as a percent of BMDO funding	46	19	16	15	11	13

STATEMENT OF HON. THAD COCHRAN

Senator STEVENS. Senator Cochran, we had opening statements. Do you have an opening statement?

Senator COCHRAN. Mr. Chairman, I do not, except to wish General O'Neill well and to congratulate him on the excellent job he has done in this office.

Senator STEVENS. General, I am sort of at a loss, as I indicated in the beginning, because I know and respect your position. I am certainly not going to question you about the decisions made by the Department, but I am disturbed about the fact that we accelerated your program by $500 million for this year. That was accepted. As I said in the opening statement, we want to know from you if we can find out how those funds have been handled as far as the Department is concerned and how they have been applied to programs, but it now looks like that $500 million was taken out of future years. I know that THAAD has been reduced by $1.7 billion. I don't know where the rest of the $3 billion reduction is.

What did you plan to do with the increase we gave to the program this year?

BMD PROGRAM FUNDING INCREASE

General O'NEILL. Sir, the intention of the $500 million, as I understand it, is to get as close to the authorization bill and the language of the law as possible, and I think they tried to do that in the program review. We are putting the additional resources that you directed into NMD into that program, and those additional resources are what make possible this three plus three strategy. The additional roughly $300 million that was appropriated gives us the capability, with $500 million in 1997 and $500 million in 1998, to offer a three plus three strategy to the Secretary, and he accepted that strategy. That is what we did with the moneys that were apportioned for NMD.

In the area of theater missile defense, the big influx of money there was for the Navy theater wide, the wide area system that the Congress wanted us to move more swiftly. We have allocated the full amount that the Congress appropriated, $200 million, for Navy theater wide, and together with an allocation of $60 million in 1997 and a total of $600 million more than the 1996 amount over the FYDP, we will be able to do a technology demonstration in the timeframe 2000–01, which could lead to an engineering development decision and the deployment of a maritime theaterwide capability within about 5 additional years.

The dollars that were taken out of the program basically came out of two areas, you mentioned THAAD. THAAD surrendered about $1.9 billion. The other area was the advanced capabilities area. If you recall my testimony last year, we had a budget of $1.1 billion starting in fiscal year 1998 for the acquisition of either Navy theater wide, a MEADS-like system, or a boost phase intercept system. The signal we obtained from Congress was very clear that Congress wanted us to move out first in the area of Navy theater wide because of the significant protection that it afforded, especially in a maritime scenario like northeast Asia or a scenario like attacking across the Persian Gulf or across the Mediterranean.

We allocated $600 million of the $1.1 billion to that program. We allocated $100 million to MEADS, for a total of about $700 million out of what we budgeted in the FYDP, almost $1.2 billion.

THAAD FUNDING

Senator STEVENS. But is not this decision now about THAAD funding being cut so deeply inconsistent with how we have allocated funds in the past? Were not the allocations made to THAAD in accordance with the general agreement with Congress that THAAD ought to be a very high priority?

General O'NEILL. The recommendation was made by the program review that the strategy for theater missile defense acquisition emphasize lower tier first, and then do the upper tier, the THAAD and the Navy theater wide, later. That diverges somewhat with what the congressional direction was from last year, yes, sir. That is clear.

BMD PERCEPTIONS

Senator STEVENS. I was at a meeting the other day where people that take national polls were speaking, and one of them told me that polls showed that about 80 percent of the American public think that we have defenses against ballistic missiles. As a matter of fact at a speech he gave at a rather large convention he asked the question in the negative, how many believe we do not have, and less than 10 percent raised their hands. There seems to be a general understanding in the community at large that that is the case, contrary to the facts.

What are we going to do to let the American public know that not only do we not have these defenses, but we are not going to have them for a substantial period longer in the future than we would have had if we stayed the course?

General O'NEILL. Sir, I cannot answer that question. I make it very clear whenever I speak what we have and what we do not have. I make it very clear going in that one of the concerns that we have as military people is that we cannot provide defense against all weapons. There are some weapons that have a free ride into my foxhole.

Senator STEVENS. Well, people, including my great friend here from Louisiana, think that I am a little bit too myopic about some of these subjects, but my memory is that about one-quarter of our marines are in Okinawa, and we have people in Japan. Clearly they are under a greater threat in the Pacific than they are anywhere else at the current time, with North Korea there. And let me say, just as sort of a little rabbit trail of the mind, it bothers me that the national intelligence estimate says no long-range missiles will reach the contiguous 48 States sooner than 15 years away. I do not understand the mind set of a person making an intelligence estimate that does not include our two homes. But they also are missing the fact that we have deployed overseas a substantial portion of our forces that are under this threat even greater than we are.

BALLISTIC MISSILE THREAT

Now, can you tell us where the greatest threat in the world is today from ballistic missiles?

General O'NEILL. Well, I think the greatest threat in terms of the aggressor would be North Korea, and I think the place that would be under the most dire threat would be South Korea and the United States forces that are supporting South Korea, if the North wanted to reunify by force. I am speaking a little bit out of turn because I am an acquisition person, not a warfighter.

Senator STEVENS. We are trying to ascertain what we should do about the recommendations, and as Senator Johnston said, it is a narrow balance we have here. But I think people who disagree are looking at the threat as being different than what I see. I see a threat primarily to the people who are outside of the contiguous 48 States to begin with.

General O'NEILL. Yes, sir; I think if you go into the body of the NIE you will not come to the conclusion that the only date to be concerned about is 15 years from now if you are concerned about the United States. And when I asked General Ashey, who is the CINCSPACE and who would be responsible for this, defending Alaska and Hawaii, whether they are part of his defended area, he said not just yes, but hell yes. He makes it very clear that in NIE there is support for our concern about the threat that is evolving in northeast Asia.

ISRAELI ACTIVITY

Senator STEVENS. I just want to ask you one last question, really a series of questions. When you made your statement you did not indicate the relationship of our system that you have been managing in terms of efforts to try and meet these threats. You did not mention the Israeli activity that we are working with and helping to finance. How does your program now tie into that, particularly in their boost phase intercept program, and how does it fit into the architecture, what you just described to us this morning?

General O'NEILL. Yes, sir; let me first say that the biggest program we are working on with Israel is the ARROW, which is a ground-based system. It is somewhere between the capabilities of Patriot PAC–3 and THAAD. It is not as good as THAAD. It does not have the range of THAAD or the altitude capability of THAAD. It is a ground-based system for national missile defense of the State of Israel. So that is the biggest part of our program. We are paying about I think 40 percent of the bill for that program. The Israelis are paying about 60 percent of the program.

The other program that we are working with them on, well, there are several, but the other system that we are thinking about with them is an unpiloted aircraft with an air-to-air missile that would be in close proximity to the launch of an enemy system like a Scud. It would actually engage the Scud as it is taking off. The assumption is made that the Scud can hide well enough that you do not know exactly where it is, but you know where it is within some number of kilometers. So you have this UAV up and alerted, and as it sees the smoke coming out from under the existing booster it engages the booster.

We are working that program with the Army in Huntsville, and we are working it with the Israeli MOD. We have contractors on the United States side and contractors on the Israeli side. It is about a $30 million program over 3 years, so it is not a big program. It is a $10 million a year program, and on the U.S. side it is considered a backup for boost phase intercept to the Air Force's airborne laser program. The Air Force has an aggressive R&D program to develop an airborne laser system that would attack the missiles as they come up through the clouds over long distances. That is the leading system that we are looking at potentially for boost phase intercept, and this program with Israel is a backup.

Senator STEVENS. Let me just finish up. I have a series of semitechnical questions that I would like to submit to you, General. I am involved in the Arms Control Observer Group, and we have some questions in relationship to that too. But, yes, Senator Shelby.

Senator SHELBY. Mr. Chairman, I know it is your time, but I wonder if General O'Neill could elaborate a little bit if he can and compare the shortcomings or pluses between the missile you just described and THAAD. You said it did not have the capability of THAAD.

General O'NEILL. Well, would you like me to do that right now?

Senator SHELBY. If you can.

General O'NEILL. Yes, sir; I would be happy to. The ARROW system is an aerodynamic system. It has wings, so when it gets up high it cannot maneuver. So it has a relatively low ceiling. It is about the ceiling of a commercial airliner.

Senator SHELBY. In other words it is limited?

General O'NEILL. Yes; it is very limited in its scope. Yes, sir; it has a large warhead on board, and so it has to carry a heavy weight. It weighs several thousand kilograms, so it is not the kind of system that you can pick up and put on a truck and run after the infantry with. The advantage, if you call it an advantage, that Israel has is that they know where the war is going to be. It is going to be right in their back yard, so they are not concerned about weight and size like we are.

The THAAD is a very mobile system. It is smaller than Patriot PAC–2 in terms of its weight.

Senator SHELBY. Much more sophisticated?

General O'NEILL. Much more sophisticated. The ARROW is really technology. They did not want us to get into a technology transfer problem, and so what the Israelis did for ARROW was they used their technologies and we were their consultants. We kind of looked over their shoulder and said you do not want to do that, you do want to do that, but we did not say here is the technology from Raytheon, take it. They did not want it, and we did not want to do that. So that is the way it has worked.

THAAD CAPABILITIES

It is a very capable system within their requirements, but THAAD has wings and has rocket thrusters, so THAAD can maneuver up, way up above where an aircraft loses its ability to turn. The THAAD can go up 200 kilometers and still maneuver after a target, and that is a capability that is a fundamental requirement if you want to do long-range missile defense. That is why for years we have considered the THAAD the flagship of our missile defense program. It is a very important part of our program because it brings totally new technologies to the table and it taps the technologies that grew out of the old SDI Program, and before that the Safeguard Program that the Army did down in Huntsville, and the Air Force ASAT Program. The technologies from the old Air Force ASAT are used to some extent in THAAD, the thrusters and things like that.

Senator SHELBY. Thank you for your indulgence, Mr. Chairman.

Senator STEVENS. Thank you. Senator Inouye.

THREAT TO ALASKA AND HAWAII

Senator INOUYE. Thank you very much. At the present time we have been told that with the exception of China and Saudi Arabia, the long-range capability of so-called rogue nations does not reach that point where we may be threatened. As the chairman has noted, there is some controversy as to what the threat is against Alaska and Hawaii. What do you consider to be the threat? I realize you are an acquisition man, but obviously it concerns our people a bit more than others.

General O'NEILL. I can tell you as an acquisition man I cannot develop anything without a threat, a validated threat. It is very clear to me one of the nations that we are concerned about is North Korea. Right now they have three what I would call medium to long range ballistic missile systems in development today. They have more development of ballistic missiles going on in North Korea than we have in the United States. So that causes me pause.

I think Dr. Deutch has mentioned in the open last year that one of their systems, it is called the Tae Po Dong–2, could, if it is developed successfully and is tested successfully, could hit Alaska and it could hit about 1,000 kilometers out into the Hawaiian chain. It cannot hit the populated areas of Hawaii with the estimate that they have right now based upon what they know about the Tae Po Dong–2.

But, as Senator Stevens asked me last year whether I considered that a tactical or a strategic weapon, I said it is a strategic weapon if it can strike the United States. So the threat from North Korea includes a strategic element, and I think we need to be aware of that. It has been openly spoken of.

Senator INOUYE. So it is a real threat?

General O'NEILL. Yes, sir; the only question is when, or if North Korea will still be there in order to threaten us with it at some time.

Senator INOUYE. General, intelligence reports seem to suggest to us that while the proliferation of ballistic missiles may be decreasing, cruise missiles are going up. Over 77 countries now have cruise missiles, and there are many others, over a dozen I believe, who are producing for export purposes. Are you concerned?

General O'NEILL. Yes, sir, I am. I am more concerned in the theater than you, because most of the, well, all of the ones I am aware of, all of the cruise missiles I am aware of are short range when you consider the intercontinental ranges. So in terms of the TMD threat, I am much more concerned than I am about the national missile threat from cruise missiles, because for an NMD threat you would have to get the platform close enough to the United States to launch, and that is another problem. You would have to get through the U.S. Navy, or you would have to get over the U.S. Air Force in order to get your platform, if it was a ship or an airplane, into position to launch your cruise missile.

The thing that concerns me in a strategic venue about the ballistic missile is that that is not the modus operandi. The modus operandi is you launch it out of a silo. So it is a one stop shot. You do not have to brief the skipper of the ship and say, "Now you have to get through 55 U.S. cruisers in order to get to a position off Hawaii to launch your cruise missiles."

But in a theater sense I think it is a very severe threat, and the problem we have with the cruise missile is the observation of the cruise missile when it flies low. We, as you know, demonstrated it out at the Pacific missile test range just about 1 month ago. The enhancement that is provided by an elevated sensor to see this missile coming in over the water can significantly enhance both the Patriot's capability and the aegis's capability to defend against cruise missiles. We were participating in that test, as you probably know.

Senator INOUYE. And you are satisfied with the capability we have at this stage of development that we can cope with stealth and with the——

General O'NEILL. No, sir; I am not satisfied if you look at an advanced cruise missile. The present cruise missile inventory that I look out at today, I think the Air Force, Army, and Navy are in pretty good shape. But it is how fast do advanced capabilities fall in the hands of people who would want to tap them, and that is why an aggressive R&D program—I think DARPA right now is spearheading an aggressive R&D program with the Navy, the Air Force, the Army, and we are supporting it.

DEVELOPMENT OF A NATIONAL MISSILE DEFENSE PROGRAM

Senator INOUYE. General, I have many other questions that I would like to submit. They are also, like the chairman's, rather technical in nature. My final question may be the crucial one for the Congress. While it might be legal to develop but not deploy a national missile defense program which violates the ABM or START Treaties, do you believe it is a prudent use of taxpayer's funds?

General O'NEILL. Sir, I want to make sure that I understand your question. Are you asking me would it be prudent to deploy something that did not pass the treaty scrutiny test? It depends upon the threat. I think if the threat was something that demanded a response, we should respond to the threat. I am of the opinion, and I think the Secretary is also, that one can at the same time have missile defense and a deterrence, between us and the Russians, based upon offensive systems.

You have to remember that we talk about a treaty compliant defense having up to 100 interceptors we are permitted to have. The START II levels are 3,000 to 3,500. So whether 100 is negligible compared to 3,000, you would have to ask the Russian rocket force. But from my standpoint it certainly would not deter me to know that America could shoot down 100 of 3,000 weapons, but it would certainly make me feel better if I knew that Kim Jong-Il only had 10 weapons or 5 weapons. I would know I could shoot his weapons down and still not disturb the deterrence equation that I would have with Russia.

Senator INOUYE. As a follow up, are you trying to tell us that at the present time, unless changes are made future threats on Hawaii and Alaska cannot be defended with treaty compliant systems?

General O'NEILL. No, sir; I am not. I am suggesting there are alternatives that we have looked at. First, let me disqualify myself as a treaty expert. I would have to put a lawyer up here who works in that area to look at all the nuances, but I certainly could defend, I think, against the kind of threat we are talking about with fewer than 100 interceptors. So interceptors is not the problem. I think

I could defend from Grand Forks, ND, which is the treaty site, against that small number of threat vehicles.

I think I would need assistance in getting information over the horizon from satellite or from radars around the world that would tell me that this threat is coming. I think the treaty lawyers would have to see, looking at all of those elements of a defense, what fits and what does not fit. All of my experts suggest that there is a workable solution. I have talked to the Army, I have talked to the Air Force, and we agree, at least at the acquisition level and the warfighter level, that there seems to be a way to have a treaty compliant architecture. So one of the architectures that we are looking at for national missile defense is what we define as a treaty compliant architecture, but it has to pass that litmus test by the people in the DOD who do compliance review, and that has not been done yet.

Senator INOUYE. Because of the easy transferability of technical knowledge and due to alliances throughout the world, proliferation of this type of system should be I suppose anticipated. I recall about 10 years ago when we were discussing cruise missiles, none of the intelligence people came up with suggestions that today more than 70 nations would have cruise missiles and over a dozen developing them, which just indicates to some of us here that what we see today may not be the picture 5 years from now.

I realize that experts have suggested that for the next 10 to 15 years, nothing will touch our shores, but the events that occur around the China Sea and the Japan Sea suggest to us that something could happen within 5 years. I realize this is not your area, but I just wanted you to know that I join my chairman in expressing this concern.

DEFENSE OF ALASKA AND HAWAII

Senator STEVENS. Just let me intersperse and jump right in there. General, THAAD would defend both Alaska and Hawaii very quickly, would it not, if it were there?

General O'NEILL. No, sir.

Senator STEVENS. From the Korean weapons?

General O'NEILL. The inbound is going significantly faster than THAAD has been designed to defend against. The system that would be coming in would be going about more than twice as fast as a typical THAAD target. The THAAD radar would be able to acquire the target, but it would not have a viable capability to defend an area of any meaningful size. It could probably be defined as having some footprint on the ground, in other words if you were within that footprint you would be safe, but it would be meaningless in terms of trying to defend the State of Alaska.

Senator STEVENS. If you had it forward deployed out of Adak you could not do that?

General O'NEILL. No, sir; you could probably defend the hole from which you are shooting, but the THAAD is defined against a threat that has a maximum range of about 3,000 kilometers and it is defined to have a meaningful defended area for a tactical force. That area would very rapidly go to zero as the incoming velocity of the target increased.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman. General O'Neill, are you saying to us that there is really no defense at the moment against an incoming missile such as Korea could launch?

General O'NEILL. Yes.

Senator SHELBY. That is the bottom line, is it not?

General O'NEILL. Yes, sir; no meaningful defense against something of that class.

Senator SHELBY. So the poll that Senator Stevens, the chairman, asked you about earlier that so many of the American people believe we have a defense at the moment against ballistic missiles, their belief is all wrong, is it not?

General O'NEILL. Yes, sir.

FLIGHT TEST OF EKV

Senator SHELBY. General, I have a lot of questions. I will go as far as the chairman will let me, and then submit the rest for the record. I am told that your current plans call for only two flight tests of the EKV and one integrated system test in the first 3 years. Is that right?

General O'NEILL. Yes, sir.

Senator SHELBY. If the intent of the three plus three program is to be able to move toward deployment after the first 3 years—that is the intent, is it not?

General O'NEILL. Yes, sir.

Senator SHELBY. Would you not have to base a deployment decision on very limited test data?

General O'NEILL. Yes, sir.

Senator SHELBY. And why would you do that?

General O'NEILL. We felt that such a decision could be made with high risk, but certainly if I had my drothers I would support additional testing.

Senator SHELBY. It is not always smart though, is it?

General O'NEILL. No, sir.

Senator SHELBY. Because there is always the possibility of something not working?

General O'NEILL. Some very simple failure could cause a slip in the ability to make that decision of 1 year, because it would take you that long to recover.

Senator SHELBY. General, is it true that the integrated systems test will likely use a surrogate launch system?

General O'NEILL. Yes, sir.

Senator SHELBY. Rather than the booster?

General O'NEILL. Yes, sir.

Senator SHELBY. And how would that work?

General O'NEILL. Well, what would happen, and this is something——

Senator SHELBY. Would that bring about delays too?

General O'NEILL. We are hoping it would not bring about delays, but it would increase the risk.

Senator SHELBY. And what is the risk?

General O'NEILL. The risk is that—I talked about an integrated system test that would be scheduled for fiscal year 1999 under the three plus three program. Because of the limitations in budget, we have decided that that test will be done with a surrogate launch vehicle, one that has been developed for testing of the EXO kill vehicle, but not the high-speed booster that you would need for a system. What we would do is we would defer the development of that booster because it is lower risk than the rest of the system.

But you would still, at the time you make the deployment decision you would not have ever tested the booster and the integrated EXO kill vehicle. That would have to be done, and we think that could be done within a year or two of the deployment decision, but that was an effort to economize. If we had additional money during the first three of the three plus three, that is the first thing I would bring back is the booster.

Senator SHELBY. But by economizing too much you are possibly jeopardizing some success, are you not?

General O'NEILL. Yes, sir.

Senator SHELBY. That is the name of the game in research and development, is it not?

General O'NEILL. It is how much risk you are willing to accept, and we made that call with great difficulty.

EMERGENCY RESPONSE OPTIONS

Senator SHELBY. I also understand, General, the Army has been working to execute the OSD direction to support the 1999 deployment option by developing and flight demonstrating a ground-based interceptor by that date. Is that right?

General O'NEILL. Sir, the program that the Army is executing is the three plus three program. The Army, along with BMDO and the Air Force, have offered what we call emergency response options. If you make a decision today that you want to deploy a system, we feel we could probably cut 2 years off of that schedule, and that is what you are talking about. But the Army does not have the funding or the direction to execute that at this time.

Senator SHELBY. Could you tell us how the funds for the national missile defense will be allocated among the various elements, for the record if necessary?

General O'NEILL. Sir, I would rather do that for the record.

Senator SHELBY. And where and in what amounts are you spending national missile defense money not related to GBI?

General O'NEILL. I would rather do that for the record. It would be more accurate. I can do some of it off the top of my head.

[The information follows:]

National missile defense fiscal year 1996 NMD funding

GBI (Includes flight test targets)	$278,507,000
GBR	87,000,000
Passive sensor technology	22,530,000
BM/C^3 and UEWR	81,015,000
Test and Evaluation (Includes EKV test planning and execution, and Integrated System Test Capability)	28,510,000
Systems Engineering and Integration	48,030,000
Deployment Planning	[1] 11,510,000
NMD Support (Includes Threat and Countermeasures, User, and BMDO internal SETA support)	32,122,000
Experiments (Includes MSX and International Programs)	79,194,000
Mission Common (Shares cost of phenomenology evaluation, test facilities, data centers, and architecture analysis common to both NMD and TMD)	48,312,000

National missile defense fiscal year 1996 NMD funding—Continued

Small Business Innovative Research	4,852,000
Fiscal year 1997 President's Budget (fiscal year 1996 NMD total)	[2] 721,582,000

[1] Includes $832,000 of MILCON funding.

[2] The difference between the DOD Appropriation ($745,621,000) and the President's Budget includes reductions for Inflation, Bosnian Rescission, FFRDC, and General Reductions.

NMD SERVICE LEAD

Senator SHELBY. General, how does your Department plan to resolve the ongoing dispute between the Army and the Air Force, over which service leads the national missile defense site deployment, as well as resolve the issue of which service's booster option is ultimately pursued?

General O'NEILL. Sir, it is my plan that the system become a joint system. I think it is pretty obvious to all of us that work in the program that we need the Army and we need the Air Force working together. The leadership of the program is going to come from me, that is my charter. The resolution of disputes is going to have to be a resolution that I feel involves the Army acquisition people, Army warfighter, Air Force acquisition person, warfighter, the Navy should be sitting there to know what the tradeoffs are, and the ultimate decision should be a decision that goes to Dr. Kaminski.

The reason is that there are very strongly held opinions in the services with regard to two issues. One is the booster alternative that is picked, and I think there are fair reasons I think on both sides for their strongly held opinions. I would rather evaluate it and make a recommendation for Dr. Kaminski based upon getting inputs from both of them. The other issue is what additional early warning capabilities might be needed.

You may not know this, Senator, but right now we do not have a good sighting with the radar of North Korea. Most of the sighting of our early warning assets is to look at the former Soviet Union. Well, North Korea was not part of the former Soviet Union, and so we may require additional early warning assets to look at these rogue areas.

Senator SHELBY. You have got to go where the risk is, do you not?

General O'NEILL. Yes, sir; both the Army and the Air Force have ideas with regard to the kind of early warning sensors, and I am involved in working with them to decide which is the best approach.

Senator SHELBY. General, a lot of people see the proper role of BMDO as a coordinator and an overseer, but we are getting the impression at times that you are trying to take BMDO into a program management mode with respect to national missile defense, among other programs. Is that correct?

General O'NEILL. Yes, sir; my responsibilities are basically the responsibilities of the acquisition executive, and those involve management and oversight. My principal role in an oversight role. As you know, I have a very small number of people. A number of systems exist. Admiral Hood has been running the Navy's aegis program independent of General O'Neill for many years. He continues to run that program.

Senator SHELBY. But it should be coordinated, should it not?

General O'NEILL. Yes; it should be coordinated. And because the moneys that come to ballistic missile defense are provided to Admiral Hood, I oversee those dollars to ensure that they are spent for the appropriate BMD elements. You can say the same thing in the Army.

MANAGEMENT ACCOUNTS

Senator SHELBY. General, I want to get into the management accounts while I have got time. I would like to talk to you briefly about BMD management accounts and my concerns on how BMDO is approaching its mission. I continue to hear from people that are involved in ballistic missile defense technology and development in my State and across the country that BMDO appears, General, to be growing its own infrastructure and bureaucracy at the expense of the individual services. We all know that history tells us that the services are the source of technology development, is that right?

General O'NEILL. Yes, sir.

Senator SHELBY. And, therefore, we must focus, I believe, General, our resources on those activities that develop, produce, and field weapons systems. You have told me that yourself.

General O'NEILL. Yes, sir.

Senator SHELBY. BMDO to my knowledge has never fielded anything, and I do not believe BMDO should serve that role. I think you have indicated that to me. BMDO should execute the direction of Congress when provided, and I am concerned that this is not the case.

Let me go further. When Congress reduced your request by $30 million, we specifically intended to address BMDO's internal growth. Your proposal to pass the reduction on to the services was in complete contradiction, I believe, to our intent. My question is this, General, with the chairman's indulgence I am requesting for the record a full and a specific accounting of how BMDO spends the money Congress appropriates. That is proper, is it not?

General O'NEILL. Yes, sir.

Senator SHELBY. I would like a program by program—this is for the committee, a line by line breakdown of all funds appropriated. Will you furnish all that for the record?

General O'NEILL. Yes, sir.

[The information follows:]

Ballistic Missile Defense Organization
Summary of FY 96 Financial Operations

APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 96 Current Position
300	0208863C	2358	USN	5.106	0.000	5.106	0.000	0.000	0.000	0.000	-0.060	0.000	0.000	-0.060	0.000	5.046
300	0208864C	3261	BMD	32.242	0.000	32.242	-0.246	0.000	0.000	0.000	0.000	0.000	0.000	-0.246	0.000	31.996
300	0208865C	2257	USARMY	399.463	-104.500	294.963	-2.255	0.000	0.000	0.000	-7.816	0.000	0.000	-10.071	0.000	284.892
300	0208865C	2257	BMD	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
			Subtotal	399.463	-104.500	294.963	-2.255	0.000	0.000	0.000	-7.816	0.000	0.000	-10.071	0.000	284.892
300	0208867C	2263	USN	16.897	0.000	16.897	-0.129	0.000	0.000	0.000	-0.388	0.000	0.000	-0.517	-1.700	14.680
300	0208867C	2263	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.700	1.700
			Subtotal	16.897	0.000	16.897	-0.129	0.000	0.000	0.000	-0.388	0.000	0.000	-0.517	0.000	16.380
	TOTAL PROCUREMENT			453.708	-104.500	349.208	-2.630	0.000	0.000	0.000	-8.264	0.000	0.000	-10.894	0.000	338.314
400	0602173C	1651	USARMY	11.557	0.000	11.557	-0.097	0.000	0.000	0.000	-0.107	-0.042	-0.065	-0.311	0.258	11.502
400	0602173C	1651	DNA	3.600	0.000	3.600	-0.030	0.000	0.000	0.000	-0.033	-0.013	0.000	-0.076	-3.524	0.000
400	0602173C	1651	USAF	6.903	0.000	6.903	-0.058	0.000	0.000	0.000	-0.064	-0.025	-0.034	-0.181	-0.744	5.978
400	0602173C	1651	USN	22.445	0.000	22.445	-0.189	0.000	0.000	0.000	-0.207	-0.081	-0.074	-0.551	-8.469	13.425
400	0602173C	1651	BMD	6.234	0.000	6.234	-0.053	0.000	0.000	0.000	-0.058	-0.022	-0.102	-0.235	10.898	16.895
400	0602173C	1660	USARMY	7.961	0.000	7.961	-0.067	0.000	0.000	0.000	-0.073	-0.029	-0.044	-0.213	0.001	7.749
400	0602173C	1660	DNA	3.298	0.000	3.298	-0.028	0.000	0.000	0.000	-0.030	-0.012	-0.018	-0.088	0.000	3.210
400	0602173C	1660	USAF	5.473	0.000	5.473	-0.048	0.000	0.000	0.000	-0.050	-0.020	-0.030	-0.146	0.000	5.327
400	0602173C	1660	USN	5.473	0.000	5.473	-0.048	0.000	0.000	0.000	-0.050	-0.020	-0.030	-0.146	0.000	5.327
400	0602173C	1660	BMD	20.364	0.000	20.364	-0.172	0.000	-0.079	0.000	-0.189	-0.074	-0.116	-0.630	0.083	19.817
			Subtotal	93.308	0.000	93.308	-0.786	0.000	-0.079	0.000	-0.881	-0.338	-0.513	-2.577	-1.501	89.230
400	0603173C	1155	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.014	-0.014	1.553	1.539
400	0603173C	1161	USARMY	4.945	0.000	4.945	-0.026	0.000	0.000	0.000	-0.045	-0.018	-0.018	-0.107	-3.047	1.791
400	0603173C	1161	USAF	5.117	0.000	5.117	-0.026	0.000	0.000	0.000	-0.047	-0.018	-0.033	-0.124	0.075	5.068
400	0603173C	1161	USN	6.531	0.000	6.531	-0.034	0.000	0.000	0.000	-0.060	-0.023	-0.019	-0.136	-3.162	3.233
400	0603173C	1161	BMD	6.907	0.000	6.907	-0.038	0.000	0.000	0.000	-0.063	-0.025	-0.044	-0.168	3.958	10.697
400	0603173C	1270	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.058	-0.058	13.359	13.301
400	0603173C	1270	USAF	1.841	0.000	1.841	-0.010	0.000	0.000	0.000	-0.017	-0.006	-0.018	-0.051	1.191	2.981
400	0603173C	1270	USN	1.443	0.000	1.443	-0.007	0.000	0.000	0.000	-0.013	-0.005	-0.010	-0.035	0.021	1.429
400	0603173C	1270	BMD	18.447	0.000	18.447	-0.096	0.000	0.000	0.000	-0.169	-0.068	-0.034	-0.365	-12.894	5.188
400	0603173C	1360	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.513	2.513
APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 96 Current Position
400	0603173C	1[illegible]60	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.0[illegible]	0.000	0.000	-0.006	-0[illegible]	5.723	5.717
400	0603173C	1360	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.0[illegible]	1.791	1.790

Ballistic Missile Defense Organization
Summary of FY 96 Financial Operations

APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 96 Current Position
400	0603173C	1360	BMD	29.854	50.000	79.854	-0.413	0.000	-0.021	0.000	-0.731	-0.285	-0.423	-1.873	-12 656	65 325
400	0603173C	1660	USARMY	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0.003	0.003	0.000
400	0603173C	1660	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0 003	0 003	0.000
400	0603173C	1660	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0 005	-0.005	0 005	0 000
400	0603173C	1660	BMD	4.302	0.000	4.302	-0.022	0.000	0.000	0.000	-0.040	-0.016	-0.019	-0.097	0.760	4.965
			Subtotal	79.387	50.000	129.387	-0.670	0.000	-0.021	0.000	-1.185	-0.462	-0.708	-3.046	-0.804	125.537
400	0603861C	2260	USARMY	578.327	0.000	578.327	-4.857	0.000	-0.176	0.000	-5.251	-2.049	-3.132	-15.465	-6.107	554.755
400	0603863C	2358	USN	23.188	0.000	23.188	-0.198	0.000	-0.008	0.000	-0.211	-0.083	-0.127	-0.625	-0.251	22.312
400	0603864C	3261	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.016	-0.016	2 805	2.789
400	0603864C	3281	USAF	17.160	0.000	17.160	-0.144	0.000	-0.060	0.000	-0.183	-0.071	-0.046	-0.493	-8.410	8 257
400	0603864C	3281	USN	4.200	0.000	4.200	-0.036	0.000	0.000	0.000	-0.045	-0.017	-0.026	-0.123	0.517	4.594
400	0603864C	3261	BMD	2.871	0.000	2.871	-0.024	0.000	0.000	0.000	-0.031	-0.012	-0.060	-0.127	3 697	6.441
400	0603864C	3261	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.006	-0.006	1.085	1.079
			Subtotal	24.231	0.000	24.231	-0.203	0.000	-0.060	0.000	-0.269	-0.100	-0.163	-0.765	-0.306	23.160
400	0603867C	2263	USN	0.000	185.000	185.000	0.000	0.000	0.000	0.000	-1.710	-0.687	-1.020	-3.397	5 655	187.258
400	0603868C	1268	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.036	-0.036	6 400	8 364
400	0603868C	1266	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.042	-0.042	7 417	7.375
400	0603868C	1266	USN	30.442	170.000	200.442	0.000	0.000	0.000	0.000	-1.853	-0.723	-0.825	-3.401	-51.885	145.156
400	0603868C	1266	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.202	-0.202	35 872	35 670
			Subtotal	30.442	170.000	200.442	0.000	0.000	0.000	0.000	-1.853	-0.723	-1.105	-3.881	-2.196	194 585
400	0603869C	1262	USARMY	30.442	-10.000	20.442	-0.172	0.000	0.000	0.000	-0.188	-0.073	-0.112	-0.545	-0.222	19.675
400	0603870C	1265	USAF	49.061	-49.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
400	0603871C	1151	USARMY	44.251	0.000	44.251	-0.185	0.000	0.000	0.000	-0.408	-0.159	-0.266	-1.016	67 166	110 401
400	0603871C	1151	USAF	21.674	0.000	21.674	-0.091	0.000	0.000	0.000	-0.199	-0.078	-0.147	-0.515	10 189	31.348
400	0603871C	1151	USN	16.271	0.000	16.271	-0.068	0.000	0.000	0.000	-0.150	-0.058	-0.013	-0.289	-13 682	2.300
400	0603871C	1151	BMD	20.479	0.000	20.479	-0.086	0.000	0.000	0.000	-0.188	-0.074	-0.144	-0.492	24 688	44 675
400	0603871C	1155	USARMY	10.525	0.000	10.525	-0.044	0.000	0.000	0.000	-0.096	-0.038	-0.050	-0.228	3 816	14 113
400	0603871C	1155	USAF	1.568	0.000	1.568	-0.007	0.000	0.000	0.000	-0.014	-0.006	-0.009	-0.036	0 001	1 533
400	0603871C	1155	USN	1.518	0.000	1.518	-0.006	0.000	0.000	0.000	-0.014	-0.005	-0.013	-0.038	0 807	2.287
400	0603871C	1155	BMD	1.061	0.000	1.061	-0.004	0.000	0.000	0.000	-0.010	-0.004	-0.005	-0.023	-0 164	0.874
400	0603871C	1267	USARMY	121.919	0.000	121.919	-0.511	0.000	-0.415	0.000	-1.120	-0.437	-0.657	-3.140	155 320	274 099
400	0603871C	1267	USAF	4.478	0.000	4.478	-0.019	0.000	0.000	0.000	-0.041	-0.016	-0.024	-0.100	-0.291	4 087
400	0603871C	1267	BMD	0.249	0.000	0.249	-0.001	0.000	0.000	0.000	-0.002	-0.001	-0.001	-0.005	4 929	5 173
400	0603871C	1460	USARMY	6.533	0.000	6.533	-0.027	0.000	0.000	0.000	-0.060	-0.023	-0.034	-0.144	0 211	6 600
400	0603871C	1460	USAF	6.331	0.000	6.331	-0.027	0.000	0.000	0.000	-0.058	-0.023	-0.050	-0 158	7 457	13 630

Ballistic Missile Defense Organization
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400	0603871C	1460	USN	0.303	0.000	0.303	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.001	-0.006	0.003	0.300	
400	0603871C	1460	BMD	16.593	0.000	16.593	-0.069	0.000	0.000	0.000	-0.152	-0.060	-0.084	-0.385	40.332	56.580	
400	0603871C	1460	NTB/NTF	3.778	0.000	3.778	-0.016	0.000	0.000	0.000	-0.035	-0.013	-0.011	-0.075	0.222	3.925	
400	0603871C	3152	USARMY	2.728	0.000	2.728	-0.011	0.000	0.000	0.000	-0.025	-0.010	-0.007	-0.053	-0.103	2.572	
400	0603871C	3152	USAF	0.554	0.000	0.654	-0.002	0.000	0.000	0.000	-0.005	-0.002	-0.004	-0.013	0.459	1.000	
400	0603871C	3152	BMD	14.875	0.000	14.876	-0.062	0.000	0.000	0.000	-0.137	-0.053	-0.112	-0.384	35.842	50.353	
400	0603871C	3152	NTB/NTF	1.200	0.000	1.200	-0.005	0.000	0.000	0.000	-0.011	-0.004	-0.003	-0.023	1.923	3.100	
400	0603871C	3153	BMD	3.110	0.000	3.110	-0.013	0.000	0.000	0.000	-0.029	-0.011	-0.017	-0.070	-0.057	2.983	
400	0603871C	3153	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.050	
400	0603871C	3157	USARMY	0.276	0.000	0.276	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.001	-0.006	0.004	0.274	
400	0603871C	3157	BMD	1.069	0.000	1.069	-0.004	0.000	0.000	0.000	-0.010	-0.004	-0.008	-0.026	0.387	1.410	
400	0603871C	3160	USARMY	2.436	0.000	2.435	-0.010	0.000	0.000	0.000	-0.022	-0.009	-0.014	-0.065	0.329	2.709	
400	0603871C	3160	USAF	0.426	0.000	0.426	-0.002	0.000	0.000	0.000	-0.004	-0.001	-0.002	-0.009	0.006	0.422	
400	0603871C	3160	BMD	11.608	0.000	11.608	-0.049	0.000	0.000	0.000	-0.106	-0.042	-0.054	-0.261	6.229	17.586	
400	0603871C	3160	SPCECMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	-0.002	0.367	0.386	
400	0603871C	3265	USARMY	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.493	0.800	
400	0603871C	3265	USAF	0.187	0.000	0.187	-0.001	0.000	0.000	0.000	-0.001	-0.001	-0.001	-0.004	0.317	0.500	
400	0603871C	3265	USN	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.193	0.500	
400	0603871C	3265	BMD	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	0.000	-0.005	-0.309	0.000	
400	0603871C	3265	SPCECMD	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.893	1.200	
400	0603871C	3270	USARMY	0.647	0.000	0.647	-0.003	0.000	0.000	0.000	-0.006	-0.002	-0.003	-0.014	0.026	0.659	
400	0603871C	3270	USAF	2.937	0.000	2.937	-0.012	0.000	0.000	0.000	-0.027	-0.011	-0.014	-0.064	-0.351	2.522	
400	0603871C	3270	BMD	4.190	0.000	4.190	-0.018	0.000	0.000	0.000	-0.039	-0.015	-0.024	-0.098	0.279	4.373	
400	0603871C	3270	NTB/NTF	0.498	0.000	0.498	-0.002	0.000	0.000	0.000	-0.004	-0.002	-0.003	-0.011	-0.002	0.485	
400	0603871C	3352	USARMY	2.936	0.000	2.936	-0.012	0.000	0.000	0.000	-0.027	-0.010	-0.022	-0.071	0.927	3.792	
400	0603871C	3352	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.149	0.148	
400	0603871C	3352	USN	0.249	0.000	0.249	-0.001	0.000	0.000	0.000	-0.002	-0.001	-0.001	-0.005	-0.001	0.243	
400	0603871C	3352	BMD	2.663	0.000	2.663	-0.011	0.000	0.000	0.000	-0.024	-0.010	-0.006	-0.051	-1.538	1.074	
400	0603871C	3352	NTB/NTF	9.931	0.000	9.931	-0.042	0.000	0.000	0.000	-0.091	-0.036	-0.081	-0.230	1.175	10.876	
				FY 96	FY 98					Civ			Undist			FY 96	
	Program		Exec	President's	Congress	FY 96	Congress	Congress	Congress	Under		JCS	Inflation	Total	Internal	Current	
APPN	Element	PMA	Agent	Budget	Adjusts	APPN	Inflation	ADP	FFRDC	Exec	Bosnia	Billpayer	Reduction	Reductions	Realignments	Position	
400	0603871C	3359	USARMY	7.563	0.000	7.583	-0.032	0.000	0.000	0.000	-0.070	-0.027	-0.060	-0.189	15.706	23.080	
400	0603871C	3359	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.011	-0.011	1.911	1.900	
400	0603871C	3359	BMD	10.341	0.000	10.341	-0.043	0.000	0.000	0.000	-0.095	-0.037	-0.004	-0.179	-6.632	3.530	
400	0603871C	3360	USARMY	6.194	0.000	6.194	-0.026	0.000	0.000	0.000	-0.057	-0.022	-0.019	-0.124	-2.675	3.395	
400	0603871C	3360	USAF	2.822	0.000	2.622	-0.011	0.000	0.000	0.000	-0.024	-0.009	-0.012	-0.056	-0.505	2.061	
400	0603871C	3360	USN	1.169	0.000	1.189	-0.005	0.000	0.000	0.000	-0.011	-0.004	-0.004	-0.024	-0.325	0.820	
400	0603871C	3380	BMD	1.428	0.000	1.428	-0.006	0.000	0.000	0.000	-0.013	-0.005	-0.032	-0.056	2.693	4.063	
400	0603871C	5050	BMD	0.000	375.000	375.000	-1.573	0.000	0.000	0.000	-3.445	-1.344	-2.067	-8.429	-366.571	0.000	
			Subtotal	370.621	375.000	745.621	-3.123	0.000	-0.415	0.000	-6.848	-2.873	-4.084	-17.143	-7.728	720.750	
400	0603872C	1155	USARMY	33.462	-1.777	31.685	-0.281	0.000	0.000	0.000	-0.292	-0.114	-0.158	-0.845	-3.074	27.766	
400	0603872C	1155	USAF	2.612	-0.369	2.223	-0.020	0.000	0.000	0.000	-0.021	-0.008	-0.014	-0.063	0.346	2.506	
400	0603872C	1155	USN	2.812	-0.216	2.396	-0.021	0.000	0.000	0.000	-0.022	-0.009	-0.012	-0.064	-0.304	2.028	
400	0603872C	1155	BMD	5.325	0.000	5.325	-0.047	0.000	0.000	0.000	-0.049	-0.019	-0.028	-0.1	-0.500	4.684	

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400	060387	1161	USARMY	3.782	[illegible]	2.570	-0.023	0.000	0.000	0.000	-0.024	[illegible]	0.005	[illegible]	[illegible]	0.921
400	060387	1170	USARMY	39.492	0.000	39.492	-0.350	0.000	0.000	0.000	-0.364	[illegible]	0.203	[illegible]	[illegible]	35.747
400	0603872C	1170	BMD	6.966	-1.426	5.540	-0.049	0.000	0.000	0.000	-0.051	[illegible]	0.000	[illegible]	[illegible]	5.530
400	0603872C	1270	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.049	[illegible]	8.824	8.775
400	0603872C	1270	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	0.938	0.933
400	0803872C	1294	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.706	9.706
400	0603872C	2180	USARMY	1.990	-0.854	1.138	-0.010	0.000	0.000	0.000	-0.010	-0.004	0.000	-0.024	-1.112	0.000
400	0803872C	2180	USAF	24.879	-1.736	23.141	-0.205	0.000	0.000	0.000	-0.214	-0.084	-0.113	-0.616	-2.817	19.908
400	0603872C	2180	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.098
400	0603872C	2259	USARMY	54.667	-0.886	53.801	-0.478	0.000	0.000	0.000	-0.496	-0.194	-0.205	-1.371	-16.385	38.045
400	0603872C	2259	BMD	1.881	0.000	1.881	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.165	-0.206	15.178	18.881
400	0603872C	3153	BMD	9.330	0.000	9.330	-0.083	0.000	0.000	0.000	-0.088	-0.034	-0.060	-0.253	-0.448	8.831
400	0603872C	3153	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.248	0.246
400	0603872C	3157	USARMY	0.826	0.000	0.826	-0.007	0.000	0.000	0.000	-0.008	-0.003	-0.006	-0.023	-0.009	0.794
400	0603872C	3157	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.025
400	0603872C	3157	USN	0.027	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027
400	0603872C	3157	BMD	3.183	-0.216	2.967	-0.028	0.000	0.000	0.000	-0.027	-0.011	-0.014	-0.078	-0.336	2.553
400	0603872C	3160	USAF	1.045	-0.124	0.921	-0.008	0.000	0.000	0.000	-0.008	-0.003	-0.004	-0.023	-0.170	0.728
400	0603872C	3160	BMD	0.906	-0.220	0.686	-0.008	0.000	0.000	0.000	-0.006	-0.002	-0.002	-0.018	-0.292	0.378
400	0603872C	3251	USARMY	2.189	-0.280	1.929	-0.017	0.000	0.000	0.000	-0.018	-0.007	-0.009	-0.061	-0.371	1.507
400	0603872C	3251	USAF	1.891	0.000	1.891	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.006	-0.046	-0.885	0.960
400	0603872C	3251	USN	1.892	0.000	1.892	-0.015	0.000	0.000	0.000	-0.018	-0.006	-0.009	-0.046	-0.016	1.830
				FY 96	FY 98					Civ			Undist			FY 98
	Program		Exec	President's	Congress	FY 96	Congress	Congress	Congress	Under		JCS	Inflation	Total	Internal	Current
APPN	Element	PMA	Agent	Budget	Adjusts	APPN	Inflation	AOP	FFRDC	Exec	Bosnia	Billpayer	Reduction	Reductions	Realignments	Position
400	0803872C	3251	BMD	42.084	-0.692	41.372	-0.366	0.000	-0.566	0.000	-0.382	-0.149	-0.281	-1.744	4.194	43.822
400	0603872C	3285	USAF	0.324	0.000	0.324	-0.003	0.000	0.000	0.000	-0.003	-0.001	-0.004	-0.008	-0.189	0.127
400	0603872C	3265	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.097	0.098
400	0803872C	3265	BMD	16.519	-0.901	15.618	-0.138	0.000	0.000	0.000	-0.144	-0.056	-0.085	-0.423	-0.221	14.974
400	0603872C	3265	SPCECMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.097	0.096
400	0603872C	3270	USARMY	1.940	-0.065	1.875	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.008	-0.049	-0.420	1.406
400	0803872C	3270	USAF	8.806	-0.853	7.953	-0.070	0.000	0.000	0.000	-0.073	-0.029	-0.022	-0.194	-4.091	3.668
400	0603872C	3270	BMD	12.571	-0.944	11.827	-0.103	0.000	0.000	0.000	-0.107	-0.042	-0.069	-0.321	0.956	12.262
400	0603872C	3270	NTB/NTF	1.493	0.000	1.493	-0.013	0.000	0.000	0.000	-0.014	-0.005	-0.013	-0.045	0.900	2.348
400	0603872C	3352	USARMY	31.994	--0.655	31.339	-0.278	0.000	0.000	0.000	-0.289	-0.113	-0.187	-0.867	2.570	33.042
400	0803872C	3352	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	-0.002	0.439	0.437
400	0603872C	3352	USN	0.746	0.000	0.746	-0.007	0.000	0.000	0.000	-0.007	-0.003	-0.015	-0.032	1.924	2.638
400	0603872C	3352	BMD	7.990	0.000	7.990	-0.071	0.000	0.000	0.000	-0.074	-0.029	-0.007	-0.181	-6.629	1.180
400	0603872C	3352	NTB/NTF	29.791	-0.433	29.358	-0.260	0.000	0.000	0.000	-0.271	-0.108	-0.182	-0.819	3.573	32.112
400	0603872C	3354	USARMY	26.091	-2.854	23.237	-0.206	0.000	0.000	0.000	-0.214	-0.084	-0.070	-0.574	-10.481	12.182
400	0603872C	3354	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.037	-0.037	6.517	6.480
400	0603872C	3354	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.050
400	0603872C	3359	USARMY	17.697	-2.861	15.036	-0.133	0.000	0.000	0.000	-0.139	-0.054	-0.109	-0.435	4.616	19.217
400	0603872C	3359	DNA	2.513	-0.689	1.824	-0.016	0.000	0.000	0.000	-0.017	-0.007	-0.005	-0.045	-0.905	0.874
400	0603872C	3359	USAF	0.828	0.000	0.828	-0.008	0.000	0.000	0.000	-0.006	-0.002	-0.006	-0.020	0.430	1.038

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400	0603872C	3359	USN	2.199	0.000	2 199	-0.019	0.000	0.000	0.000	-0.020	[illegible]	-0.019	-0.086	1 284	3.417	
400	0603872C	3359	BMD	21.902	-0.716	21.184	-0 188	0.000	0.000	0.000	-0.195	-0.076	-0.057	-0.516	-11 580	9.088	
400	0603872C	3359	NTB/NTF	2.198	0.000	2.198	-0.019	0.000	0.000	0.000	-0.020	-0.008	0.008	-0.055	-0.880	1 483	
400	0603872C	3360	USARMY	18.585	-0.476	18.108	-0.160	0 000	0.000	0.000	-0.167	-0.065	-0.071	-0.463	-5.302	12.344	
400	0603872C	3360	USAF	7 866	0.000	7.866	-0 070	0 000	0.000	0.000	-0.073	-0.028	-0.044	-0 215	0 032	7.683	
400	0603872C	3380	USN	3 608	-0.634	2.974	-0 026	0 000	0.000	0.000	-0.027	-0.011	-0.026	-0.090	1 880	4 564	
400	0603872C	3360	BMD	4.276	-0.222	4.051	-0 038	0.000	0.000	0.000	-0 041	-0.016	-0.032	-0.125	1.845	5.571	
			Subtotal	480.470	-22.000	438.470	-3.883	0.000	-0.566	0.000	-4.046	-1.583	-2.412	-12.490	-4 795	421.185	
400	0604864C	3261	USARMY	14.301	0.000	14.301	-0.120	0.000	0.000	0.000	-0.094	-0.037	-0.025	-0.276	-9.694	4.331	
400	0604864C	3261	USAF	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	0.000	-0.016	-0.015	3.548	3.531	
400	0604864C	3281	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.011	-0.011	1.952	1.941	
400	0604864C	3261	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	4.087	4.082	
			Subtotal	14.301	0.000	14.301	-0.120	0.000	0.000	0.000	-0.094	-0.037	-0.056	-0.307	-0.109	13 886	
400	0604865C	2257	USARMY	247.921	104 500	352.421	-2 971	0.000	0.000	0.000	-3.229	-1.261	-1.927	-9.388	19 975	363.008	
400	0604866C	2257	USARMY	19.485	0.000	19.465	-0.164	0 000	0.000	0.000	-0.178	-0.070	-0.106	-0.518	0.000	18.967	
400	0604867C	2263	USARMY	0.000	0.000	0.000	0 000	0 000	0.000	0.000	0 000	0.000	-0.029	-0.029	0.029	0.000	
400	0604867C	2263	USN	237 473	-140.000	97.473	0 000	0.000	0.000	0.000	-0.677	-0.342	-0.493	-1.712	-0 029	95.732	
400	0804867C	2263	BMD	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000	
			Subtotal	237.473	-140.000	97.473	0 000	0 000	0.000	0.000	-0 877	-0.342	-0.522	-1 741	0.000	95 732	
400	0605218C	4151	USARMY	47 348	-10.000	37 348	-1 115	0 000	0.000	0.000	-0 334	-0.130	-0.194	-1 773	-1 092	34 483	
400	0605218C	4151	USAF	4.473	0.000	4 473	-0.133	0.000	0 000	0.000	-0 040	-0 016	-0.030	-0 219	1 172	5 426	
400	0605218C	4151	USN	6 960	0.000	6.960	-0 208	0.000	0 000	0.000	-0.062	-0 024	-0.038	-0.332	0.147	6 775	
400	0605218C	4151	BMD	22.111	0.000	22.111	-0.028	0 000	0.000	-0 632	-0.197	-0 077	-0.128	-1 062	1 836	22 885	
400	0605218C	4151	NTB/NTF	3.981	-2.000	1.981	0 000	0.000	0.000	0 000	0 000	0.000	0 000	0 000	-1 981	0 000	
400	0605218C	4154	BMD	15.203	-2 000	13 203	0.000	0.000	0.000	-0.394	-0.118	-0.046	-0.077	-0 635	0.075	12 643	
400	0605218C	4162	USARMY	9.839	0.000	9.839	0.000	-0.294	0.000	0.000	-0 088	-0.034	-0.069	-0 485	2 969	12 323	
400	0605218C	4182	USAF	8.948	0.000	8.948	0 000	-0 267	0.000	0.000	-0.080	-0.031	-0.017	-0 395	-5.387	3 166	
400	0605218C	4162	USN	0.206	0.000	0.206	0.000	-0.006	0.000	0.000	-0 002	-0 001	-0.001	-0.010	-0.092	0.104	
400	0605218C	4162	BMD	66.473	-18.000	50 473	0.000	-1.563	0.000	-0.002	-0.471	-0.180	-0.268	-2 484	-0 329	47 660	
400	0605218C	4162	NTB/NTF	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0 000	0 000	-0.006	-0 006	1 071	1 065	
			Subtotal	185.542	-30.000	155 542	-1.484	-2.130	0.000	-1.028	-1 392	-0 539	-0.828	-7 401	-1.611	146 530	
	TOTAL RDT&E			2442.199	633.439	3075.836	-18 629	-2.130	-1.315	-1.029	-28.182	-11.000	-16.805	-79 089	0.000	2996.549	
500	0603871C	3157	BMD	0.832	0 000	0.832	0.000	0.000	0.000	0 000	0 000	0.000	0.000	0 000	0 000	0 832	
500	0603872C	3157	BMD	2 577	0.000	2 577	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000	2 577	
500	0604861C	2260	USARMY	13.600	0.000	13.600	0 000	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000	[illegible]	13.800	
	TOTAL MILCON			17.009	0.000	17.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.009	
TOTAL BMDO				2912.916	528.939	3441.855	-21.259	-2.130	-1.316	-1.028	-36.446	-11.000	-16.805	-89.983	0.000	3351.672	

General O'NEILL. If I may respond, I have all of the data with me today. I can provide it to you today. Basically what it says is that if you call it infrastructure, the infrastructure of the SDIO and now the BMDO has gone down by about 1,000 man-hours per year over the last 5 years. If you look at the support for one of our services, let us just call it the Army, let us just take the Army for example, BMDO work forces dropped 895 man-years since 1992. The Army work force has grown 351 man-years since 1992. The Army's share of BMDO funding has grown from 46 percent in 1992 to 60 percent of the BMDO funding. Out of that 60 percent——

Senator SHELBY. But there is a reason for that, is there not?

General O'NEILL. Oh, yes, sir. I am about to get to it. The reason is that the Army is acquiring and readying for deployment major systems in theater missile defense. So what we have in the Army in 1992, all of the money that went to the Army went to the Army technology organization called SSDC. In 1997 only 13 percent of the BMD Program goes to SSDC. Almost one-half of the program goes to the program executive officer for missile defense, Colonel Montgomery, who is sitting to my right.

So out of the program that was once a technology program in the Army which was being executed by the Space and Strategic Defense Command, the program has turned significantly to an acquisition program supported by the program executive officer for missile defense in Huntsville. The technology program, as I mentioned earlier, is only 8 percent of my program. So any organization that emphasizes technology as its product has lost in this evolution from SDIO to BMDO.

If you look at the Air Force Phillips Laboratory, if you look at the Naval Research Laboratory, if you look at the Army Research Laboratory, as well as SSDC, you will see exactly the same parallel. We have been unable to continue to justify the level of technology base support that I would love to have in this program.

Senator SHELBY. Wait a minute. Say that again. You have been unable——

TECHNOLOGY BASE SUPPORT

General O'NEILL. We have been unable to sustain the level of financial support for the technology base in this program.

Senator SHELBY. I thought that was what it is all about, the R&D on technology.

General O'NEILL. The technology, sir, right now is about $250 million out of a $2.8 billion budget. Eight percent of my program is the kind of business that had formerly been done by SSDC. If you are not in the acquisition business, if you are not on this side of the room now, you are not being heavily resourced. And if you look at the total number of people working in Huntsville, AL, the number has risen by 351, but it has not risen at SSDC. You are absolutely right, it has gone down dramatically at SSDC.

It is because Colonel Montgomery has more work that he has to do, and he has had to take people out of SSDC and he has had to hire more people to execute the acquisition programs for Patriot, the acquisition program for THAAD, the NMD Program which belongs to him, the MEADS Program which belongs to him. All of those programs are outside of the technology element that has become this concern on your part in terms of a reduction in manpower.

Senator SHELBY. But, General, is it not very important or just fundamental that we keep the research and development in the technology area growing and healthy at all times, and not creating the bureaucracy here or anywhere else?

General O'NEILL. Yes, sir; well, I can tell you that I do not see—I mean, with a cut of my organization of 900 people, I can assure you there is no bureaucracy that I have noticed in my organization.

Senator SHELBY. We have seen it grow, though. We have seen the money go over there.

General O'NEILL. No; I have not, sir. If you look at the amount of money that went into management of SDI and the amount of money that goes into management of BMDO, it is significantly lower; 895 people is roughly $1 billion. It is $1 billion less.

Senator SHELBY. General, should we not be concentrating on future technologies as we begin acquiring hardware?

General O'NEILL. Yes, sir.

Senator SHELBY. You have got to be at the edge of the envelope, that is the key.

General O'NEILL. Sir, you are right.

Senator SHELBY. You mentioned a few minutes ago our inadequacies as far as defense. Now, how are we going to cover those inadequacies? No way except technology.

General O'NEILL. Yes, sir, you are absolutely right. If you recall last year when a similar question was asked, I said that although the priorities in my program right now are (1) TMD, (2) NMD, (3) technology—technology on the bottom—if I had an additional dollar, the first place I would put it is in technology. So I would flip-flop the priorities if I had additional money.

Because you are absolutely right. Down in Huntsville we are losing technically credible individuals that we may need to hire in 2 years because the technology program has gone the way it has gone. The technology program continues to go down. The program review group did not add $1.

Senator SHELBY. If we lose that, the Nation loses, do we not?

General O'NEILL. Yes, sir; the program review group from DOD did not add $1 to my technology program.

Senator SHELBY. Thank you for indulging me, Mr. Chairman. My time is up.

Senator STEVENS. Thank you, Senator. I am told I should have been talking about aegis rather than THAAD in my questions concerning Alaska and Hawaii. General, we can get into that later.

Senator Johnston.

PATRIOT SUCCESS RATE

Senator JOHNSTON. Thank you, Mr. Chairman. General O'Neill, would you compare the Patriot's success ratio with what you would think that PAC–2, how successful it would have been?

General O'NEILL. With PAC–3?

Senator JOHNSTON. Well, PAC–2 with PAC–3.

General O'NEILL. Yes; PAC–2 was——

Senator JOHNSTON. What was the Patriot's success ratio in the gulf war?

General O'NEILL. The estimate we have is about 50 percent, I think, if you average the rate in Saudi Arabia that was somewhat better than the rate in Israel.

Senator JOHNSTON. I thought it was much lower than that.

General O'NEILL. I think the number is about 50 percent, let me see if my young PEO can give me any help there.

Colonel MONTGOMERY. For Saudi Arabia, Patriot's effectiveness was greater than 70 percent. For Israel, Patriot's effectiveness was greater than 40 percent.

General O'NEILL. Did you hear that, sir?

Senator JOHNSTON. No.

Senator STEVENS. General, I think we ought to identify later all of the people who are with you today. Colonel, come on up.

General O'NEILL. This is Col. Dan Montgomery, Program Officer for Missile Defense of the Army. He has been here 1 week.

Colonel MONTGOMERY. Sir, I am going on some probably old memory, but I think it was greater than 40 percent against Israel, and greater than 70 percent in Saudi Arabia, as I remember.

Senator JOHNSTON. And what would you expect PAC–2 and PAC–3 to be?

General O'NEILL. PAC–3, which is the advanced system, will have I think—well, some of these numbers are classified. The single shot kill probability of PAC–3 is classified, but I think what we can say is we have a concept of operations if you want to impose a high kill probability of no leakage, you can achieve that with the PAC–3. I am not going to tell you how many rounds we have to fire or how we would fire them, whether we would shoot and then look and then shoot, or we would salvo, but with a number of rounds you can realistically presume you will have that high a kill probability.

Senator STEVENS. That is not the improved PAC–2 now?

General O'NEILL. No; this is the PAC–3. One of the reasons, sir, that you can do that is that this is what is called a hit-to-kill warhead, so you have undeniable evidence of striking the target because you actually fly into it. One of the problems we had in Desert Storm was the old Patriot warhead would explode and something would keep coming, and the question was, was that something that kept coming a live Scud or a killed Scud? With the PAC–3——

Senator JOHNSTON. Or one of the vehicles that accompanied this.

General O'NEILL. Or one of the pieces of tankage, yes, sir.

Senator JOHNSTON. When you say you hit 47 or 60 percent, does that include knocking something else down maybe other than the Scud missile?

Colonel MONTGOMERY. Killing the warhead, yes, sir.

Senator JOHNSTON. Killing the warhead. Now, if you stationed the PAC–3 in, let us say in the Cook Inlet to protect Anchorage or off Waikiki Beach, could you defend those cities with PAC–3 against a Korean threat?

General O'NEILL. No, sir.

Senator JOHNSTON. How about the aegis missile?

General O'NEILL. Absolutely not.

Senator JOHNSTON. Why is that?

General O'NEILL. For Patriot, Patriot is a semiactive system. In other words the Patriot radar has to be flood loading the target, and the Patriot missile flies toward that target. So there is a coupling and a dependence, a very strong dependence upon the interceptor through its radar. If the radar has limited range and limited time for engagement, you cannot make the necessary connectivity. So Patriot has no capability, and the Navy area defense system has no capability because they operate basically on the same principle.

Senator JOHNSTON. Aegis cannot knock down the Korean missile?

General O'NEILL. No, sir.

Senator JOHNSTON. And that is because it does not acquire it soon enough?

General O'NEILL. It does not acquire it soon enough, and it cannot fire far enough out to have the missile do its particular job. The missile has to be under the control of the aegis radar, and the Navy area defense system does not have the capability velocitywise, altitudewise, or otherwise to engage that target.

UPPER TIER SYSTEM

Senator STEVENS. I have to get in here now. We put $170 million in, and I was under the impression that would lead us to upper tier on the aegis system.

General O'NEILL. Yes, sir; the upper-tier system is a different system. The upper-tier system would have the limitations, the same limitations of the radar, but the upper-tier system would be able to get to the altitude. If the target was what we believe that class of target would look like, that interceptor could work. The problem is the radar, the negligible nature of the footprint. If one wanted to do strategic defense from a maritime platform, one would have to configure a different system, a system that had either a space-based sensor or an air-based sensor, and a system that could fly over the horizon away from the ship and do its job very much like the GDI EKV, which is a strategic weapon.

Senator JOHNSTON. You say if you do strategic defense, you mean a wide area of strategic defense?

General O'NEILL. Yes, sir.

Senator JOHNSTON. But you would be able to defend Anchorage or Honolulu or individual cities with the high tier?

General O'NEILL. The upper tier, I do not think so. I do not think the footprint would be significant enough. I might want to ask Admiral Hood if he has anything to add.

Admiral HOOD. No, Senator. The limitation would be on the speed of the target. If it is a strategic target traveling faster than about 5 kilometers per second, which would match to a range of about 3,000 to 3,500 kilometers, the radar is not designed to track such a target.

Senator JOHNSTON. Now how about THAAD?

General O'NEILL. THAAD is the same. THAAD would be in the same boat. THAAD is a better radar, has a longer range than the Spy–1, but the THAAD missile is significantly slower than the missile that we contemplate for Navy theater wide. So THAAD would not have the reach, THAAD would not be able to reach out far enough to defend the city. These are designed to be theater missile defense systems, they are not designed to be targeted against a strategic missile, so they have inherent weaknesses. They are significantly incapable of providing defense, especially to what we call soft targets, and people are soft targets. People are not tanks, and people are not air bases with ramps and revetments and things like that, and they are not ships with fire control apparatus and things like that.

Senator JOHNSTON. North Korea is the only country that has the present capability of launching an ICBM with greater than 5 kilometers per second?

Senator BUMPERS. Greater than what?

Senator JOHNSTON. Five kilometers per second.

General O'NEILL. Sir, it is not a present capability. This is a system we feel is in development. The NIE, national intelligence estimate, tells you when that could mature, but I cannot say.

Senator JOHNSTON. When is that date?

General O'NEILL. I cannot give you that date, sir. That is classified information.

Senator JOHNSTON. OK. When you say the American public, when they say the American public is not aware that you cannot defend against some threat in the future that does not presently exist and the date of which you cannot say.

General O'NEILL. What we can say is it is in development right now, and it is assumed that it would be developed inside the window that would be of concern for defense of the contiguous 48, which is inside the 15-year timeframe. But I cannot say, unfortunately, what that specific date is.

THEATER MISSILE DEFENSE

Senator JOHNSTON. Would you tell us briefly why we need to pursue for theater defense aegis, PAC–3, Navy area defense, and theater defense, and THAAD, and MEADS, what niche each one fills?

General O'NEILL. Yes, sir; the systems that you are talking about, with the exception of THAAD that is in our core program, are all product improvements to existing systems. Let me give you an example. The United States has spent $45 billion to outfit the U.S. Navy with the aegis system. It is the most advanced fire control system we have in the Defense Department today. Presently it has no capability against ballistic missiles.

One of my naval officers who works for me was the executive officer of a ship in the Persian Gulf during Desert Storm. He could see on his radar the Scud's coming over the ship, because they actually flew out over the Persian Gulf and then back into Dharan. He swears he saw the missile on his radar that killed those soldiers, Mr. Murtha's national guardsmen, in Dharan. His greatest frustration in his life he said was that with this very modern weapons system that cost almost $2 billion to put it in the water, we had to stand there and watch.

All it would take is to change some software, get some math scientists to sit down and write 1,000 lines of code, which they could do in about 1 year, and then to upgrade the standard missile that they are already putting in for cruise missile defense into the fleet. We are doing it in tandem now. We are going to have a tandem system that does ballistic and cruise missile defense. I am going to pay a portion, the Navy pays the rest. For that missile to go into the fleet, then the Navy could support the ground pounders, the

Marines and the Air Force guys who are on the ground in a situation like the one I am describing. In that case the Patriots were incapable of engaging. I cannot go into details, maybe Dan can.

But for that particular system on that particular day, the Patriots that were configured to defend, and did an excellent job of defending Dharan, could not fire. The ship watched that sucker come over. That is the kind of thing we do not want to happen. It is a product improvement that costs a fraction, a very small fraction of the investment we already have in the aegis system.

You can say the same thing about Patriot. The Patriot investment cost was about $15 billion, not as much as the aegis system, but $15 billion. What we are doing is we are giving the Patriot the ability to now take under fire the whole sweep of air defense threats, not just air breathers, Floggers and Fishbeds, and Mig-25's and things like that, but cruise missiles, helicopters, fighters, bombers, and ballistic missiles. I think it is only the logical way to do business.

Senator JOHNSTON. Well, I am just wondering about whether we will down select one of the systems and out select another one depending upon how they work and how technology evolves, or whether each one has its own capabilities that we would want to pursue separately.

General O'NEILL. From my standpoint each one has a niche to fill, but the Joint Chiefs and Dr. Kaminski are looking to accomplish the mission is as efficient a way as possible. One of the things Dr. Kaminski is bringing into this game is the discipline of making sure when we talk about what we need and we say we can have the Navy there and the Army there, that you add the systems and you find out how many of each you need. You do not assume that there is no one fighting the war but the Navy. You assume the Navy is fighting with the Army and the Air Force. What Dr. Kaminski calls it is a dissimilar competition. We compete the dissimilar systems.

In other words, if the Army needs 1,200 rounds for PAC–3, the Navy needs 1,200 rounds for Navy area, we might be able to go with 600 of PAC–3 and 600 of the Navy area to do the same mission. That is one of my jobs as the joint connectivity between the services, to see how these systems complement each other so we do not buy more capability than we need.

Senator JOHNSTON. And so one day 10 or 15 years from now you would expect we would have probably fewer systems that would be used, the same system may be on a ship——

General O'NEILL. Yes, sir; one of the things we are doing and it is a major focus of PAC–3 upgrade and it is a major focus of an independent Navy system called cooperative engagement, is we are trying to make sure that when a weapons system on the ground it does not only have to depend upon the single sensor that it has. For example, the Patriot has a radar in its battery area. If something happened and that radar went off the air today, Patriot is incapable of supporting the ground force.

Well, what if there was a common fire control understanding between the Army and the Navy so that if the Patriot radar has to go off, if it is knocked off by an armed missile for example, the aegis then could provide the radar for the Army. We would cooperatively engage the target based upon a queue from an asset 10 kilometers away but out in the ocean to help our system. We are trying to build this into our systems in missile defense leveraging, the Army program to upgrade Patriot and the Navy cooperative engagement program which they demonstrated at the PMRF 1 week ago.

Senator STEVENS. Senator Cochran.

DEPLOYMENT TARGET DATES

Senator COCHRAN. When the Defense authorization bill was signed into law by the Presiding setting forth some target dates for deployment of some of these systems, let me ask you this. Under the budget requested submitted that is before the committee now, will any of those target dates be met?

General O'NEILL. Sir, as I look right now, none of the target dates will be met based upon the authorization language. Can I caveat that by saying the target dates for two of the systems, the lower-tier systems, PAC–3, and Navy area defense, have slipped not because of dollar concerns but because of what we call fact of life concerns. There have been technical issues, there were startup issues in the PAC–3, there was a protest of the selection of the PAC–3 munitions, if you recall. The program got started a little bit late. Because it got started late we were not willing to accept the risk of trying to keep the same time line.

I mentioned earlier that there actually has been, as a result of Dr. Kaminski's decision, over $300 million put into PAC–3, and almost $200 million put into the Navy area system, the lower-tier system, to try to get as close to the congressionally mandated dates as possible. So we have done everything we can, but we can only get back to what are the fact of life dates we think are acceptable from a technical standpoint.

The other systems, the upper-tier systems suffered in the program review. Yes, sir.

Senator COCHRAN. Do you have any revised projected deployment dates that you are working on in your office? Have you sort of reconfigured what the plan is?

General O'NEILL. Yes, sir, we have. The Congress asked, for example for THAAD they asked for the user operational evaluation capability in 1998. We are maintaining that. It is less capability, but there is still a capability in 1998. The Congress asked for 2000 for THAAD's first unit equipped. The date right now is 2006. There was a 6-year slip in the first unit equipped with THAAD. The Navy theater wide, Congress asked for the UOES in 1999 and an IOC of 2001, and the Navy theater wide program right now is a technology demonstration program and we have not forecasted an IOC date. I would think it would probably slip at least 5 years.

Senator COCHRAN. How does this fit with your three plus three program? I listened to that and I recognized that these dates were not going to be met. Is the three plus three meaningful at all?

General O'NEILL. Yes, sir; I think it is. I think the three plus three is an excellent idea because of the lack of understanding we have right now of the specific threat we are going to deploy against. If you recall, one of the concerns that Senator Stevens had was the NIE, which talked about not to worry for 15 years. That was only part of the NIE. I would like to say the NIE, if you read it, you get a much clearer understanding of what the real threat is. But the three plus three can respond in 6 years, not 15 years. It can respond in 6 years.

BUDGETED AMOUNTS

Senator COCHRAN. But what amount of money would be needed in order to achieve that goal?

General O'NEILL. Sir, the amount of money that we have presently budgeted, plus $5 billion. It would cost $5 billion to deploy that system.

Senator COCHRAN. What are the projected requests in the outyears for the program as presently projected to be deployed?

General O'NEILL. Well, as presently projected there is no deployment authorized. So what we have projected in the present 5-year defense program is only the technology program, and the dollars are $597 million, $598 million, $499 million, and then $300 million in 2000 and 2001. So what we do is we establish this threshold to deploy after 3 years, and then we keep the pilot light on for all practical purposes thence forward. The $5 billion is nonfunded, and that would be something that would have to be decided by the President and the Congress.

Senator COCHRAN. Well, my understanding then is that you do not support the deployment dates, you do not, you cannot support the deployment dates for the space and missile tracking system, for example, established in the Defense authorization bill, or can you?

General O'NEILL. Sir, the space and missile tracking system is an Air Force program. It is a program that is intimately tied to the Ballistic Missile Defense Program, but it is the understanding right now that I have that that program would not be deployed until the 2006–08 timeframe. So that would miss the congressionally mandated dates.

Senator COCHRAN. There are funds that were appropriated—I think there is $51 million of 1996 funds that have not been released. When we put in $135 million additional funds, $51 million have not been released, which as I understand it was for some flight experiments. What is the plan for the release of those funds, and what is the risk if you do not proceed with the experiments?

General O'NEILL. Sir, the concern I have is, and I recommended very strongly that the $51 million not be rescinded from the SMTS Program. The $51 million was going to be utilized for a low-cost experiment to be conducted by a contractor, which would position that contractor to be competitive at the engineering milestone, the engineering management development milestone. The arguments that have been made are that we had a competition once and this contractor lost, so we do not need to give him any more money to continue to participate. I think that is shortsighted because competition in my experience is a vital element of the American taxpayer getting things that work very well and that do not cost a lot. I would like to keep the competition going. I think this engineering manufacturing development decision is a major decision, so I support allocating that $51 million.

I have voiced my concern to the decisionmakers. I think the ultimate decisionmaker will be Dr. Kaminski, because the Air Force has a position and the Deputy Under Secretary of Defense for Space, Mr. Davis, has a position, and I have my position.

THAAD/NAVY THEATER WIDE FLY OFF

Senator COCHRAN. When the review was made by the Department of the missile defense program, there was a suggestion that there should be a fly off in effect between the two systems, THAAD and the upper-tier TMD system. What is your view of that? Do you see these as competitive systems or are they really complimentary, as some of us thought? Why put these in competition at all?

General O'NEILL. Sir, I do not think they are competitive systems. I do not think the fly off makes a lot of sense, and I do not think Dr. Kaminski thinks it makes a lot of sense. The idea was offered in our discussions in the Pentagon and it was rejected by the acquisition side, including Dr. Kaminski. There was no reason to stop the THAAD Program, there was every reason in the world to continue with the THAAD Program. It looked like our first opportunity to have realistic theater missile defense for long ranges to protect wide areas.

The payoff of Navy theater wide is very clear, and it is something that potentially offers significant payoffs. It promises the ability to engage targets in the ascent phase, which THAAD could only do in a pathological scenario. But if you look at the major regional contingencies that we are looking at today, with the Navy upper tier, Navy theater wide system if it were in the fleet, you could take a few cruisers, like two, and you could defend a large area behind the ships, including most of Japan, against an attack from North Korea. That is a significant capability that no other system that we are contemplating would have. For that reason I think the theater wide is a program we need to look at.

I think what Dr. Kaminski envisions is another what he calls dissimilar competition. In other words, you can save a lot of money by synergizing the Navy theater wide and THAAD and making sure you do not buy more capability than you need. In other words they both have a wide area defense capability in the terminal phase, and if you are going to use an MRC like the Korean scenario or a Persian Gulf scenario, you can enhance significantly the THAAD system with the Navy upper tier, so you do not have to buy as many of the THAAD system. So we can work that kind of competition without having a shoot off. So I do not think the shoot off is a good idea.

ARROW INVESTMENT

Senator COCHRAN. Some of the critics of this program say that the tests do not justify the investments that are being made in future technology and development of these systems. Is it not true that just recently in the test of the ARROW system, which we are investing in with Israel, that there were some very important success stories? Could you tell us about that or confirm that, and say what benefits that really results in terms of U.S. interests? How does that benefit our program?

General O'NEILL. I would be glad to. The ARROW Program of late has been a real success story for the missile defense program. It has passed every one of its first three tests of the ARROW 2, which is the upgraded ARROW system, with flying colors. The moment of truth though is still in the offing. The first engagement test where it actually is going to try to shoot something down is the next test. I cannot tell you when that is, that is classified, but the next test is a real eye opener for ARROW. But thus far it has passed through every stage of its flight trajectory as an interceptor, and the component that was supposed to perform has performed perfectly.

The feedback, for example, is that we now know that the focal plane for THAAD will work, because it is the same one that is used by the Israelis. We have seen that focal plane open its eyes, pick up a target, and track the target. So we know that works. At the same time the ARROW missile was pulling G's, so it was turning and twisting, and all the time its eyeball was locked on where it would have flown if there was a target. There was not a target. It was looking at another object. But that kind of technology transitioned in the THAAD significantly reduces the concern that I have about the success of THAAD.

So the programs are proceeding concurrently, but they are very strongly synergistic, and the feedback that we get from ARROW will go straight to THAAD.

Senator COCHRAN. Are there other interoperable components of the programs or systems?

General O'NEILL. There are software processor interoperabilities. There is some BMC^3 interoperability. Again, the ARROW has a warhead, which the THAAD does not have, and the ARROW is an aerodynamic vehicle. The only thing it uses to steer are its aerodynamic surfaces, and the THAAD has others, so THAAD has a much different guidance loop than the ARROW does. So there are some things that are not the same.

TESTING CONSTRAINTS

Senator COCHRAN. As we are testing the THAAD systems are we restricted or limited in a way that we can address because of White Sands or other test sites being too small or inadequate for the purpose, and is there anything we can do as a committee to appropriate funds to address that?

General O'NEILL. Sir, there are constraints on the testing. It is interesting you should mention that. We had a test scheduled this morning. I was hoping I could bring very positive news to this committee today.

Senator COCHRAN. High winds, we were told.

General O'NEILL. Yes, sir; the test was scrubbed because of high winds. I do not want to get the committee to get the impression that the high winds would affect the interceptor. The interceptor flies very rapidly through the areas where the high winds are. The problem is after the interceptor hits the target and causes a bunch of debris to start falling down through the sky, we want to make sure we know where the cloud of small particles of steel winds up. As long as there is even a small probability of that cloud of debris, some of it getting off the range, off of White Sands and into the other areas of New Mexico, we have to postpone the test. We took the decision this morning all the way to the commander of the range, and the commander of the range said because of my concerns about safety you cannot test today, you will have to test Friday.

But every one of those tests costs several million dollars, so the loss of a test today was a loss of almost $2 million from my program, and that is something that is a serious impact. We really have to look for some other places to go, and that is why PMRF is so important, that is why Kwajelein is so important to our future.

Senator COCHRAN. What is PMRF?

General O'NEILL. I am sorry, sir. It is the Pacific missile range facility [PMRF] in Kawai. That is why I was looking in Senator Inouye's direction. [Laughter.]

Senator COCHRAN. That is good justification for our continued support. It is very convincing. [Laughter.]

Thank you very much.

Senator STEVENS. Thank you. Senator Bumpers.

Senator BUMPERS. General O'Neill, first of all I want to say that I scanned your testimony, and I found it very interesting and intellectually honest. I applaud most of what you have said this morning because I think honesty around here in the numbers and what we hope to accomplish are very important. That is one of the reasons on the three plus three program, I think the three plus three program makes eminently good sense. However, if I subscribe to the threat described in the national intelligence estimate, I would rather see the three plus three become a five plus five.

I can remember when everybody in this country was sitting on the edge of their seat about star wars. I never did much believe in that program, and I certainly thought it was a terrible abrogation of the ABM Treaty. But be that as it may, we spent $33 billion on star wars and we do not have very much to show for it. As I say, the thing I liked about your testimony is you seem to be very realistic about the timeframes and the amount of money it is going to take to do it, and I appreciate that.

I have always said that if the American people make a wrong decision, it is probably because they are being fed misinformation. Throughout the 205-year history of this country, every time the American people have gotten the unbiased truth they have almost always made the right decision. And so it is with Congress. Sometimes I think Congress, more than the American people, is more likely to make mistakes once they get the facts because they are people who just do not want to listen. That is why some members do not want this national intelligence estimate. They do not want to believe it because it conflicts with what they believe personally.

Even if CIA is off by a margin of 5 years you still have time to go, not necessarily all that slowly, but we certainly have plenty of time to deploy a NMD system. In this fast technologically changing society, you and I both know that what we may wind up with 3 years from now is what we think is a national ballistic missile defense system that really will work and we can take pride in, 2 years later it may be that we are a little off the mark. So I issue a word of caution, if we have the time the CIA says we have, we ought to take advantage of it.

THREE PLUS THREE DEPLOYMENT

I am going to submit most of my questions in writing, General. I wanted to make those statements, but I wanted to ask you if you can tell me, assuming we go forward with the three plus three system, we are going to spend $2.8 billion developing it and then $5 billion deploying it, it is about $7.8 billion for the two?

General O'NEILL. Yes, sir; if we decide to deploy.

Senator BUMPERS. If we do it. If under present planning we did decide to go forward with it, how many interceptors and radars would that buy?

General O'NEILL. The five would buy the additional early warning sensors we needed. It would buy 20 interceptors.

Senator BUMPERS. Would it have the capability of dealing with submunitions from a missile?

General O'NEILL. It would have. Yes; it would if the submunitions were on the missile when it was intercepted. If the missile dropped off the submunitions early in flight, the answer is no, it would not have that capability.

Senator BUMPERS. That is what I am talking about, early release submunitions.

General O'NEILL. No, sir; again, I think if you look at the NIE, and let me comment about the NIE. We agonized over the NIE when we decided to make it a three plus three and not a five plus five. I think what you need to do is understand that the comment that was made about 15 years was with respect to the contiguous 48 States, not the United States.

Senator BUMPERS. You are not suggesting we go forward just to protect Hawaii and Alaska, are you? [Laughter.]

General O'NEILL. Yes, sir; that is what I am saying. [Laughter.]

Senator BUMPERS. I recognize in the national intelligence estimate they mentioned Alaska specifically in the report.

General O'NEILL. Yes, sir, they do.

Senator BUMPERS. I recognize that, and if I were Senator Stevens I would be very wary of the threat, as I would if I were Senator Inouye, and they will receive all the consideration from the members of this committee and the Congress that we can give them of course.

But let us assume we go forward with the three plus three system. Under present planning would it be in compliance with the ABM Treaty?

General O'NEILL. As I said earlier——

Senator BUMPERS. You probably answered these questions earlier.

ABM TREATY COMPLIANCE

General O'NEILL. I can do it again. I just said I am not an expert in the ABM Treaty, but my advisors suggest the answer is yes. We have talked to the Army experts, they think the answer is yes. We have talked to the Air Force experts, they think the answer is yes. However, we have not yet brought it to the group of people who work for Dr. Perry who have to make that very difficult judgment.

Senator BUMPERS. What you are saying is that is a judgment call that has not yet been made?

General O'NEILL. It is a legal call, it is a judgment call, it is an international call, and all of those situations have to be looked at and the threat has to be considered because, as you yourself are saying, depending upon the sophistication of the threat we might not be ready in 3 years to deploy. If it turns out that this threat emerges as a very sophisticated system, then it would have to turn into a five plus five or a whatever.

What we are assuming is the kind of threat that is in the NIE. The NIE is very critical here. If that threat that is in the NIE continues to mature at the rate that the intelligence community thinks it is maturing, then a three plus three makes sense, where the three is to prepare for a deployment of a system that can combat that threat, not any threat, not an early release submunition threat or a MIRVed system of a very sophisticated nature, but the threat that the NIE is concerned about and that right now I am concerned about because it is a threat to the United States of America.

Senator BUMPERS. Well, General, I have understood and I assume the understanding is still correct that we are building or we are contemplating the system to deal with a limited threat?

General O'NEILL. Yes, sir.

Senator BUMPERS. And, of course, you know there are two schools of thought, you and I have heard all of the experts expound on both sides of this issue. But more specifically, how many warheads could 20 interceptors deal with?

General O'NEILL. We are talking about on the order of five, at least I think I can say that.

Senator BUMPERS. That is based upon present technology?

General O'NEILL. Based upon present technology, yes, sir, with a high degree of confidence.

Senator BUMPERS. Mr. Chairman, I have a few other questions that I would like to submit to General O'Neill in writing, and I will try to get those to him within the next week. I thank the chairman.

Senator STEVENS. Thank you very much. General, we just did not hear that, OK? With regard to your testimony now, one of the things that bothers me most is this technology program. You obviously do not have sufficient resources for that, right?

General O'NEILL. No, sir.

Senator STEVENS. Is it within your current command instructions to tell me how much could you use in the next year and in the 5 years?

General O'NEILL. Sir, we provided last year a similar answer to a question, and the question was phrased basically—because I am defending the President's budget. I do not have a separate agenda. But we can answer the question from the Congress what would it take to provide a technology program fully responsive to the law passed in fiscal year 1996 that says have these capabilities by these dates. The House National Security Committee has already asked me to answer that question, so I can provide the same reply to you, sir.

Senator STEVENS. That would deal with the future more difficult threats that were not going beyond the horizon, right?

General O'NEILL. Yes, sir; it would talk to things like early release submunitions and say what a responsible technology program would be in those areas. You could consider that for your own purposes.

Senator STEVENS. Now, General, you have retired and you have gone to another pursuit and you find yourself up here and you represent either Alaska or Hawaii, OK. I want to ask you which of these systems would you pursue to fund and get it robust so that your constituents would be defended sooner rather than they otherwise would be?

General O'NEILL. I would support the three plus three without any inhibitions at all, and I would make that my top priority if I was a Congressman.

Senator STEVENS. Three plus three deals with some systems that cannot help us. You just told us that.

General O'NEILL. No, sir; three plus three has systems that can help you. Three plus three is my national missile defense, not my Theater Missile Defense Program. The three plus three program is something that can respond to what we think is a reasonable estimate of when we would have to have a system in the field. If it turns out that it looks like that system is maturing more quickly than we thought and that there was more intent to use it than we thought, we could speed the three plus three up and probably make it into a two plus two, so the capability would be 2001 to 2003.

Senator STEVENS. Well, the two of us came back from Israel once and we were really uptight about some of the things we saw there in the Persian Gulf. We were sitting and listening to the study, the presentation about the Patriot, and asked why cannot Patriot be changed. We put up some money and it was changed within a 2-year period. Now I am looking for the same kind of information, what is there that can be accelerated so that we do not have to wait until 2003?

General O'NEILL. Sir, we have looked at that with the Army and the Air Force, and we have what we call an emergency response system which is a 4 year to deployment system.

Senator STEVENS. We would like to be briefed on that. We are going to go out and look at the Pacific range soon.

General O'NEILL. I would be very happy to do that, sir, and I will bring the Army and the Air Force along.

Senator BUMPERS. General, you probably just insured a nice comfortable retirement for yourself. [Laughter.]

Senator STEVENS. Thank you very much. Do you have any further questions, Senator?

COUNTERMEASURES

Senator INOUYE. General, some of us are concerned about the potential countermeasures to our national and theater missile defenses. Do you believe that what we have is adequate? And I ask this because I have been hearing much about chaff and balloons and jammers and decoys and such. Two years ago we had scheduled, I believe, 13 strategic target systems, or STARS, missile tests at the Pacific missile range facility. One benefit of these tests was to learn more about possible countermeasures. However, we canceled nine of the tests when the NMD Program was slowed.

General O'NEILL. Yes, sir.

Senator INOUYE. And one of the major missions was to deal in countermeasures. Are we concerned about this?

General O'NEILL. Yes, we are, sir. We are very concerned about that. One of the reasons that we wanted to use the PMRF and the STARS system in particular—which you supported, thank you very much, sir, or we would not have it today—was to look at the MIRVed threat, the multiple independently targeted reentry vehicle systems, and simulate them coming out of an enemy silo and going after our system, and we would put our test system in Kwajelein as these STARS targets came in. That was a system that would probably be considered a more challenging threat than the threat that we are anticipating seeing as the first Third World strategic missile threat. That is something that we are going to be looking at and considering in future testing, but we will not have the kind of data, we will not have the numbers of shots and the amount of phenomenology that we had promised you several years ago we would accumulate in this program.

So it is a concern. Countermeasures are always a concern. Senator Bumpers brought up the early release submunitions, that is a theater missile defense countermeasure, it is not really a strategic countermeasure, but those are the reasons why Senator Johnston's question about why do you have several systems. Some systems do well against the boost phase, so you can stop the person before he has a chance to drop off the RV's and the balloons and the jammers. That is why we are concerned about the leverage we could have if we had that kind of capability.

We have projected the first capability we will have is a ground-based capability, and that capability will be against a simpler threat than the threat that we were simulating in the experiments that you were briefed about.

AEGIS RADAR

Senator INOUYE. General, finally, I was quite impressed with your testimony on the report that was submitted by one of the aegis officers in which he stated that on his radar he saw very likely the Patriot or the Scud that killed several of our men and women. You indicated that that system could have been configured within 1 year to respond to that threat.

General O'NEILL. It could have been configured softwarewise in 1 year. The missile is another story. That would take several years.

Senator INOUYE. With that change in the radar system and the configuration would it be treaty compliant?

General O'NEILL. Yes, sir, absolutely. No question about that.

Senator INOUYE. Are we giving this high priority?

General O'NEILL. Yes, sir; I would think it is of equal priority with the PAC–3, so that the two systems, Navy area defense and PAC–3, are our two highest priority systems in our highest priority part of the BMD Program, the Theater Missile Defense Program.

Senator INOUYE. My final question takes in consideration that you will be leaving us soon and recognizes also that this has been a very difficult chore on your part because you have on the one hand technicians and leaders, on the other hand you have Members of Congress, and realistically you have to deal with both sides. You cannot ignore either side completely. Is it possible for you to submit a statement to us, without these pressures, but based upon your background and your knowledge, on what the priorities should be? I, for one, would appreciate that.

General O'NEILL. I would be happy to do that, sir.

[The information follows:]

THEATER MISSILE DEFENSE PRIORITIES

Based on an examination of the threat, the systems available in the near term, and available funding, the Department decided to field PAC–3 and Navy Area Defense as quickly as possible. Therefore, the Department increased investment in PAC–3 and Navy Area Defense to ensure timely delivery to the warfighter. The Program Review increased funding for PAC–3 by $345 million and the Navy Area Defense program by $186 million over the Future Years Defense Plan, fiscal year 1997–2001. These increases provide PAC–3 FUE in fiscal year 1999 and a Navy Area Defense User Operational Evaluation System (UOES) for contingency use in fiscal year 2000. I believe THAAD should be equal in priority with the lower tier systems, i.e., the "TMD Core Programs" should be the priority, not just the lower tier elements.

Senator STEVENS. We will take that either before you retire or right after you retire. [Laughter.]

General O'NEILL. I think Dr. Perry will let me submit it any time I finish with it, so I will start as soon as possible.

Senator STEVENS. Let me ask two questions. The first one ought to be fairly simple, but can you tell us what level of funding would be required for fiscal year 1997 to maintain the schedule for the program of THAAD prior to the restructuring after the program review?

General O'NEILL. Sir, we are researching the answer to that question right now. I think the answer is on the order of $200 million. We will provide that for the record.

[The information follows:]

THEATER HIGH ALTITUDE AREA DEFENSE

To return to the schedule prior to restructure requires additional funding in each fiscal year 1997–2002. An additional $223 million is required in fiscal year 1997 to begin this process. However, a single year plus-up will not return THAAD to the schedule prior to restructure.

ABM TREATY INTERPRETATION

Senator STEVENS. Now, this is the unfortunate one. There are some of us who believe that the current administration has too narrowly construed the ABM and we have had long, long arguments in another place about that. But have you been given instructions pertaining to the current interpretation of the ABM by the administration that limits your program?

General O'NEILL. Sir, we have a decision from Dr. Kaminski based upon the recommendations from the legal staff that we at the moment will not put the queueing software into the THAAD system. It is not critical yet because the THAAD UOES will not be ready until fiscal year 1998, as I said. But my experts tell me that it will take 9 months to develop and test that software, so the clock is ticking now and I have told Dr. Kaminski that October 1996 is when I have to have the ability to start writing that queueing software.

Senator STEVENS. What about in terms of just the basic research as to future options to meet future threats? Are you restricted in any way with regard to current interpretation of the ABM?

General O'NEILL. Absolutely not. The research program is unrestricted now, as it was with the SDI Program. We can do research. That is allowed under the treaty.

Senator STEVENS. I think it is allowed under the treaty, but I had understood there had been some restrictions. You have not received any?

General O'NEILL. No, sir; the only restrictions I have received are in the pocketbook, and that is based upon the program review, the bottom up review, and priorities. But other than that, no, Sir.

Senator STEVENS. But that is sort of ducking me because there were avenues we were on that were going to test the limits of ABM under your predecessor, and it was my understanding that some of those you have been drawn back from. You say you have been drawn back because of funding?

General O'NEILL. I have been drawn back because of funding and also because of the recommendations of the Joint Chiefs and the Office of the Secretary of Defense about what capability is needed first. I think it has been decided by the Joint Chiefs and by the Secretary that the first capability you need is the PAC–3 Navy area. They just happen to be a nonissue for the treaty. The more capable future systems are where the issues are.

But I have received no guidance, other than the fact that there are limited resources to quickly develop these systems. So no, I have received no guidance.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. There is a very subtle distinction in my mind and I think an understandable decision by the Chiefs under the circumstances, so we again thank you very much. As I said, we look forward to visiting with you. I think we would particularly like to visit with you, as we indicated, because we are going to make that trip soon.

Thank you very much, sir.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

THEATER HIGH ALTITUDE AREA DEFENSE

QUESTION: LTG O'Neill, does the decision to slow the THAAD program reflect the priorities of the warfighting CINCs based on your discussions with these commanders and your understanding of theater threats?

ANSWER: The requirement for missile defenses is immediate and critical. Based on an examination of the nature of the threat, the systems that could be available in the near term, and the funding available for missile defense, the Department decided to stress the fielding of PAC-3 and Navy Area Defense as quickly as possible. Both of these lower tier systems principally address the immediate threat of shorter range missiles. We will field lower tier systems first and the upper tier systems will follow. In order to have an earlier upper tier capability for use in contingencies, we are developing a User Operational Evaluation System (UOES). The primary purpose of the THAAD UOES is for early user involvement in design and testing of the THAAD system and is not intended to be a fieldable system. Again, it would only be made available for contingency use should national security warrant. We anticipate an initial THAAD UOES capability by the end of fiscal year 1998.

QUESTION: Based on progress to date under the THAAD program, what level of funding would be required in FY97 to maintain the schedule planned for the program prior to the program review restructure?

ANSWER: To return to the schedule prior to restructure requires additional funding in each fiscal year FY97 - FY02. An additional $223M is required in FY97 to begin this process. However, a single year plus-up will not return THAAD to the schedule prior to restructure.

QUESTION: What changes in the threat led DoD to conclude that a "UOES plus" THAAD system would be adequate instead of the objective THAAD system, and what specific capabilities will be sacrificed?

ANSWER: There haven't been any changes to the threat. The operational requirement for THAAD will have to be relaxed slightly to accommodate the UOES+ system. This has been explained to the JCS who accept the new approach which enables fielding of a very effective first generation THAAD shortly after the turn of the century.

THREAT

QUESTION: General O'Neill, can you characterize the steps that could be taken by an adversary to make it more difficult to defeat ballistic missiles.

ANSWER: An adversary could attempt many steps to make it more difficult to defeat his ballistic missiles. To be successful these steps would have to be based on an accurate understanding of the defense system he is confronting and largely anticipated by the designers of the adversary's defense system. Such steps could include direct attack on the defensive components such as missile batteries and detection, tracking and fire control radars, the use of stressing tactics such as salvo launches, the employment of penetration aids such as decoys, chaff, jammers, advanced submunitions, and evasive maneuvers.

QUESTION: General O'Neill, based on your experience and analyses done by BMDO, how difficult will it be for our adversaries to employ these countermeasures? In what time frame do you expect to see these countermeasures employed?

ANSWER: Likely countermeasures include changes in ballistic missile employment practices, technical penetration aids for ballistic missiles, and improvements in defense suppression capabiliteis specifically tailored to neutralize theater missile defense elements. [Deleted.]

QUESTION: General O'Neill, which of the missile defense programs currently in development would be most capable of responding to this "evolved" threat?"

ANSWER: Threat evolutions are made primarily in response to the presence of an effective Theater Missile Defense (TMD). BMDO programs are designed to engage and defeat not only current threat systems, but also potential threats. All programs within the TMD Family of Systems architecture provide a capability to be responsive to a wide variety of "evolving" threats. Growth options to the architecture, such as new concepts being developed in our advanced technology PE (e.g., Space Based Lasers), are continually being evaluated for inclusion, and as specific threats evolve, responses appropriate to those specific threat developments will be made.

3 + 3

QUESTION: General O'Neill, your organization has indicated that the "3 plus 3" strategy will produce a system which can protect all 50 states against a "handful" of "simple" threats. Do you believe the threat North Korea could pose to Hawaii or Alaska is "simple"?

ANSWER: The potential threat posed by North Korea to either Alaska or Hawaii in the near term is "simple" when compared to missile systems that exist in Russia and China. The indigenously developed threat we might expect from North Korea does not approach that of either Russia or China in either quantity or technical sophistication.

QUESTION: General O'Neill, can you discuss the differences between the Army and Air Force [3 + 3] concepts in terms of cost, schedule, performance, and effectiveness?

ANSWER: The Army concept (known as the Army NMD Evolutionary Program) features a single interceptor site defense with an X-band phased array radar called Ground Based Radar (GBR) at Grand Forks; an interceptor with an 8.2 km/sec velocity at booster burnout; use of Advanced Early Warning Radars (AEWRs) located in Alaska, Hawaii, and the east coast; Upgraded Early Warning Radars (UEWRs); and an upgraded BM/C3 capability. The proposed architecture would be intended to provide effective coverage for all 50 states against limited threats. The concept provides for an early deployment option in 2000-01 (20 interceptors, no SMTS) and an objective system deployment in 2002-03 (100 interceptors and SMTS). The proposed cost is $5 billion for the development, test, and deployment of the early deployment architecture, including 12 integrated flight tests, and an additional $3 billion for the objective system development, test and deployment, not including SMTS, which is separately funded. The Army program leverages the baseline BMDO NMD Deployment Readiness Program, the test infrastructure at the U.S. Army Kwajalein Atoll, and the site infrastructure at Grand Forks, North Dakota.

The Air Force concept, known as the Air Force Minimum Investment Approach, features maximum use of existing infrastructure. The proposed architecture includes a single interceptor site defense with a Minuteman booster to deliver a kinetic kill vehicle based on existing technology; existing Defense Support Program (DSP) satellites; UEWRs; X-band dish radars located on each coast; and at an as yet undetermined location in the western Pacific, BM/C3 capability leveraging the existing Minuteman and NORAD infrastructure, with modifications, as needed, to accommodate the defensive mission. The concept allows for deployment of a system with 20 interceptors within four years, and an additional 18-24 months to increase the quantity to 100 interceptors. SMTS would provide increased capability, when available. The proposed Air Force cost estimate is $2.0-2.5 billion for a system with 20 interceptors, including a series of integrated flight tests (≈3/year) but not including SMTS, which is separately funded. An additional $1.5-2.0 billion is required to increase the system to 100 interceptors. Growth to multi-sites is an option, if required. Cost estimates are preliminary and subject to improvement as specific technical upgrades and schedules are developed.

These cost estimates were developed internal to each service and are not based on vigorous cost analysis methodology. The Army concept is most similar to the BMDO architecture. The Air Force conceptually provides a low cost option that can be deployed quickly. In terms of performance and effectiveness, both concepts claim to provide the capability to counter a rogue nation threat with high (greater than 90 percent) probability. Both systems provide for long range growth. There are treaty compliance issues to be addressed with both the Air Force and the Army plans.

QUESTION: General O'Neill, do the Army and Air Force NMD concepts permit upgrades to deal with increasingly sophisticated threats?

ANSWER: Yes, both concepts have significant growth potential. In general, all ground-based NMD concepts can be upgraded to deal with more stressing threats in incremental steps. As more sophisticated technology is developed the NMD elements can be improved by incorporating this technology. For example, the exoatmospheric kill vehicle's performance can be improved by substituting a more advanced focal plane array or increasing the capability of the on-board processor to deal with a more complex target. More sophisticated threats can also be addressed at the system level by either increasing the quantity of the elements or adding new elements. The activation of additional sites or increasing the interceptor inventory is a relatively quick system level approach to dealing with such changes in the threat. Under the U.S. Air Force's NMD proposal, 20 Minuteman ICBMs would be needed as the NMD booster. The major advantage of this approach is its use of existing hardware and infrastructure for a defensive system. However, use of more than

20 Minuteman ICBMs could have START Treaty issues. The NMD System also gains significant capability with the introduction of new elements, particularly the Space and Missile Tracking System. Finally, either of these systems could serve as the ground-based segment of the layered defense system that would be necessary to counter massive threats.

NMD THREAT

QUESTION: General O'Neill, what is one of the most difficult scenarios for an NMD system to defend against?

ANSWER: Threats scenarios with the shortest times of flight and scenarios with launch and impact points the greatest distance from Grand Forks cause the greatest difficulty with the current NMD system architecture. The further an interceptor has to go, and the less battle space (time) it has to respond, the more stressing the scenario. Examples are North Korea to parts of Alaska and North Korea to Hawaii. Penaids and multiple RVs further complicate the intercept.

QUESTION: General O'Neill, do you believe the National Intelligence Estimate accurately assesses the development of ballistic missile threats to the U.S., countenancing the possibility of technology export by ballistic missile-capable nations and the relative ease of employing selected countermeasures?

ANSWER: [Deleted.]

SPACE AND MISSILE TRACKING SYSTEM

QUESTION: General O'Neill, can you give us a sense of how much more effective an NMD system will be with the Space and Missile Tracking System (SMTS)?

ANSWER: The Space and Missile Tracking System (SMTS, formerly known as Brilliant Eyes) is a critical element of the objective National Missile Defense (NMD) architecture. SMTS will provide the over-the-horizon target tracking capability needed to provide a high-confidence, cost-effective defense of the United States. A low-altitude infrared satellite constellation, SMTS will provide unique precision tracking and discrimination data that cannot be duplicated by ground-based assets. These data allow for effective NMD system performance against sophisticated threats, such as larger numbers of small cold warheads, electronic countermeasures (ECM), and complex penetration aids or Multiple Independently Targeted Reentry Vehicle (MIRVed) systems. SMTS's ability to track over-the-horizon targets in their midcourse phase permits the earliest possible interceptor launch, thereby extending the battlespace and increasing the probability of kill.

QUESTION: General O'Neill, can you tell us how much you plan to spend defining upgrades for early warning radars?

ANSWER: Our proposed expenditures for defining as well as demonstrating potential early warning radar (EWR) upgrades are as follows:

($ in Millions)

FY96	FY97	FY98	FY99
$9.660	11.350	18.150	$4.778

These expenditures will allow for prototyping of requirements for upgrading the EWRs in three major categories: 1) target detection, 2) tracking, and 3) discrimination.

BMD PROGRAM REVIEW

QUESTION: General O'Neill, what specific input did your organization have to the BMD Program Review?

ANSWER: The BMD Program Review was lead by the Director, Strategic and Tactical Systems, at the direction of USD(A&T). The review involved all the major DoD staff agencies, the Services, and the Joint Staff. The BMDO was among the participants in the review. When the review was complete, USD(A&T) requested confirmation from me that the revised program was executable. Within the context of the revised program, I suggested minor adjustments to improve executability.

QUESTION: General O'Neill, can you highlight and discuss any shortcomings or weaknesses in the BMD Program Review?

ANSWER: I think the greatest difficulty was attempting to craft a robust BMD program within fiscal guidance. Department budget constraints and JROC guidance to keep BMD in balance with other priorities resulted in a program that is less robust than I would like to have seen.

AGREEMENT BETWEEN U.S. AND ISRAEL

QUESTION: General O'Neill, can you tell us the key elements of the pending agreement between the U.S. and Israel and when you expect this agreement to be finalized?

ANSWER: The Arrow Deployability Program agreement will provide for cooperative research and development of technologies associated with the deployment of the Arrow Weapon System, such as system integration, battle management, lethality, and kill assessment. The cooperative program will also determine the modalities for Arrow Weapon System interoperability with other theater missile defense systems, including those of the United States. While the program will provide Israel an early deployment of the Arrow Weapon System, the program will be conducted in such a way as to provide maximum technology and phenomenology benefits for the United States. The United States and Israel will cost-share the six-year $556 million dollar program 36 percent/64 percent, respectively.

The Arrow Deployability Program agreement was entered into by the Department of Defense and the Israeli Ministry of Defense on March 29, 1996. The National Defense Authorization Act for Fiscal Year 1994, stipulated, however, that Department of Defense funds for the program may not be obligated until the President certifies to Congress that: (1) a bilateral international agreement has been concluded, (2) each project will benefit the United States and has not been barred by other Congressional direction, (3) the Arrow successfully intercepted a target missile under realistic test conditions, and (4) the Government of Israel is continuing, in accordance with its previous public commitments, to adhere to export controls pursuant to the Guidelines and Annex of the Missile Technology Control Regime. After the agreement was signed March 29, 1996, action was initiated to obtain the certification.

The certification was signed by the President on May 28, 1996. The required Congressional notification and publication in the Federal register are proceeding as directed by the certification.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

NATIONAL MISSILE DEFENSE

QUESTION: Please tell us how the funds for NMD will be allocated among the various elements of the program in FY96? Specifically, I would like to know where and in what amounts you are spending NMD money not related to GBI?

ANSWER:

FY96 NMD Funding
($=M)

GBI (Includes flight test targets)	$278.507
GBR	$ 87.000
Passive sensor technology	$ 22.530
BM/C3 & UEWR	$ 81.015
Test & Evaluation (Includes EKV test planning and execution, and Integrated System Test Capability)	$ 28.510
Systems Engineering and Integration	$ 48.030
Deployment Planning	$ 11.510[1]
NMD Support (Includes Threat & Countermeasures, User, and BMDO internal SETA support)	$ 32.122
Experiments (Includes MSX and International Programs)	$ 79.194
Mission Common (Shares cost of phenomenology evaluation, test facilities, data centers, and architecture analysis common to both NMD and TMD)	$ 48.312
Small Business Innovative Research	$ 4.852
FY97 President's Budget (FY96 NMD total)	$721.582[2]

[1] Includes $.832M of MILCON funding.

[2] The difference between DoD Appropriation ($745.621M) and the President's Budget includes reductions for Inflation, Bosnian Rescission, FFRDC, and General Reductions.

QUESTION: For what portion of the "3 plus 3" program will BMDO be acting as program manager? Which elements will the Army and other services manage?

ANSWER: The architecture planned for the initial system capability being developed by the "3 plus 3" program is comprised of 5 major elements: the Ground Based Interceptor (GBI), the Ground Based Radar (GBR), Upgraded Early Warning Radars (UEWRs), Forward-deployed Early Warning Radars, and the Battle Management, Command, Control and Communications (BM/C3). In addition to these elements there is a major System Engineering and Integration function that ensures these elements work as a system.

The Ballistic Missile Defense Organization (BMDO) provides overall management of the entire NMD development and oversees integration of the elements into a complete system capable of defending the country. Recognizing the importance of NMD, the USD(A&T) recently authorized the establishment of a Joint Program Office (JPO) for NMD. This general officer Program Manager, supported by staff from all the Services, will report to the Director, BMDO. The JPO will add important discipline to NMD program management and execution.

Currently, the U.S. Army manages development of the exoatmospheric kill vehicle program which is the NMD program's most stressing technology and the key to the GBI's performance. They also manage the GBR program and participate as a significant member of the BM/C3 development. The U.S. Air Force manages the development of the UEWRs and another major segment of the BM/C3. The Air Force is also responsible for the Space and Missile Tracking System which will be a significant element of NMD once deployed. The booster necessary to complete the GBI and the specific forward-deployed early warning radars have not been specifically defined; however, this process is underway. Once the technical approach has been selected they will be assigned by the NMD JPO to one of the two Services for development.

SSDC CENTER OF EXCELLENCE

QUESTION: The Fiscal Year 96 Senate Defense Appropriations report directed BMDO to designate the Army Space and Strategic Defense Command (SSDC) as a Center of Excellence for technology development. The conference report did not contradict this language. Could you please give us an update on your progress and when will you complete this effort?

ANSWER: BMDO is working with a number of centers of excellence for system acquisition and technology development. SSDC remains one of our primary centers and is the focal point for the BMD technology development in the U.S. Army. Specifically, SSDC is the center of excellence for the Endoatmospheric Aerothermal Mechanical Flight Experiments, the Atmospheric Interceptor Technology, Microelectronic components for passive sensors, Ladar development, Ground Based Interceptor related interceptor components, Targets programs, the Airborne Surveillance Testbed, the High Altitude Observatory, the Army's portion of the Innovative Science and Technology and the Small Business Innovative Research, the Missile Defense Data Center and the U.S. Army Kwajalein Atoll.

THEATER HIGH ALTITUDE AREA DEFENSE

QUESTION: Your written statement says that "BMDO interacts with the CINCs to ensure that as (you) develop BMD systems (you) respond to the specific needs of the war fighter." You further state that you work "closely with the service Program Executive Officers to execute key BMD acquisition programs and put real capability into the hands of our military forces." With that in mind, how do you explain DoD's response to GEN Luck's plea for the THAAD system in this area of responsibility?

ANSWER: The requirement for missile defenses in South Korea is immediate and critical. Based on an examination of the nature of the threat, the systems that could be made available in the near term, and the funding available for missile defense, the Department decided to stress the fielding of PAC-3 and Navy Area Defense as quickly as possible. Both of these lower tier systems principally address the immediate threat of shorter range missiles. In order to have an earlier upper tier capability for use in contingencies, we are developing a User Operational Evaluation System (UOES). The primary purpose of the THAAD UOES is for early user involvement in design and testing of the THAAD system and is not intended to be a fieldable system. Again, it would only be made available for contingency use by Presidential order should national security warrant. We anticipate an initial THAAD UOES capability by the end of fiscal year 1998.

QUESTION: To what extent did Dr. Kaminski or the JROC solicit the views of the war fighting commanders-in-chief? What were their inputs? How were they addressed?

ANSWER: The recently completed BMD Program Review was conducted by Dr. Paul Kaminski the Under Secretary of Defense for Acquisition and Technology. The Review established specific guidance for the BMD program over the next several years. BMDO provided input to Dr Kaminski throughout the review, however, BMDO cannot comment on what other sources Dr. Kaminski or the JROC consulted in preparing their review.

QUESTION: The Department is planning to purchase 40 THAAD "Deployable Prototype" missiles for contingency deployment in an emergency. Is this an appropriate number of UOES missiles? If so, how did you determine that this was an appropriate number?

ANSWER: The quantity of UOES missiles was not based on an estimate of rounds required to support a contingency deployment. The UOES prototype is primarily intended for early user involvement in the design and testing of the THAAD system. A quantity of 40 missiles was determined necessary to satisfy these objectives and there is a plan to use these missiles during testing. However, in the event of a national emergency, UOES will be available for contingencies.

QUESTION: How does this number compare with our experience in the Gulf with PATRIOT?

ANSWER: There is no appropriate comparison between the number of THAAD UOES missiles being acquired and PATRIOT PAC-2 missiles produced prior to and during the Gulf War. THAAD UOES missiles are prototypes while PATRIOT PAC-2 missiles were full rate production articles.

PAC-2 missiles were scheduled for full rate production when the United States responded with Operation Desert Shield in August 1990. The first production delivery of three PAC-2 missiles was shipped in September 1990. This represented a four month delivery acceleration. During the period from August 1990 to the end of the war, the missile delivery schedule was progressively accelerated five times and each time deliveries exceeded the newly established delivery goals. By the end of the war, approximately 500 PAC-2 missiles were delivered and available for use.

QUESTION: The Department's review of BMD Programs calls for a decision in 1998/1999 between LEAP, THAAD and AIT-Derived kill vehicle options of the Navy Theater Wide interceptor. What are the departments' specific program plans to support this competitive process?

ANSWER: The Ballistic Missile Defense Organization (BMDO) has formed a Joint System Engineering Team (JSET) to examine the critical technologies that might satisfy Navy performance requirements. The JSET is led by BMDO with participation from the Army and Navy Program Executive Offices, as well as Air Force Staff representation. The JSET will determine a single data set requirement which will allow a comparison of concepts that represent a variety of different technology components. When the data collections process is complete, the JSET will conduct its system engineering analysis and recommend a configuration to BMDO's System Design Board (SDB). The SDB will review the configuration and provide an implementation plan for selected technology incorporation into the Navy Theater Wide interceptor.

QUESTION: Is funding being requested to support development and testing activities associated with each of these kill vehicle options for the Navy?

ANSWER: While BMDO has included funding for AIT component technology development, THAAD, and preparation for AEGIS flight testing of a Navy LEAP configuration in the FY97 Presidential Budget request, funding levels do not include integration activities for other than LEAP-derived kill vehicles. The joint system engineering analysis has yet to determine what the configuration for the Navy Theater Wide interceptor should be. Consequently, a detailed cost estimate cannot be made at this time. An initial review of candidate systems and their technologies may provide enough information to support planning requests for additional funds. It is simply too early in the process to develop these planning requests.

ALLOCATION OF FUNDS

QUESTION: Please provide a full and specific accounting of how BMDO is spending the money Congress appropriates. I would like a program by program, line by line breakdown of all funds appropriated for Fiscal Year 1996 and how they were spent. I would also like an accounting of funds not yet obligated and how BMDO intends to allocate them.

ANSWER: Please see attached chart

Ballistic Missile Defense Organization
Summary of FY 96 Financial Operations

APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 96 Current Position
300	0208863C	2356	USN	5 106	0.000	5.106	0.000	0.000	0.000	0.000	-0 060	0.000	0.000	-0 060	0.000	5 046
300	0208864C	3261	BMD	32 242	0.000	32.242	-0.246	0.000	0.000	0.000	0.000	0 000	0 000	-0.246	0 000	31 996
300	0208865C	2257	USARMY	399.463	-104.500	294.963	-2.255	0.000	0.000	0.000	-7.616	0.000	0.000	-10.071	0 000	284 892
300	0208865C	2257	BMD	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0 000	0 000
			Subtotal	399 463	-104.500	294.963	-2 255	0.000	0.000	0.000	-7 616	0.000	0.000	-10 071	0 000	284 892
300	0208867C	2263	USN	16.897	0.000	16.897	-0.129	0 000	0.000	0.000	-0.368	0.000	0.000	-0.517	-1.700	14 680
300	0208867C	2263	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.700	1.700
			Subtotal	16.897	0.000	16.897	-0.129	0.000	0.000	0.000	-0.368	0.000	0.000	-0.517	0.000	16 380
	TOTAL PROCUREMENT			453.706	-104.500	349.206	-2.630	0.000	0.000	0.000	-8.264	0.000	0.000	-10.694	0.000	338 314
400	0602173C	1651	USARMY	11.557	0 000	11.557	-0.097	0.000	0.000	0.000	-0.107	-0 042	-0.065	-0.311	0 256	11 502
400	0602173C	1651	DNA	3.600	0.000	3.600	-0.030	0.000	0.000	0.000	-0.033	-0.013	0.000	-0.076	-3 524	0 000
400	0602173C	1651	USAF	6.903	0.000	6.903	-0.056	0.000	0.000	0.000	-0.064	-0.025	-0.034	-0.181	-0.744	5.976
400	0602173C	1651	USN	22.445	0 000	22.445	-0.189	0.000	0.000	0.000	-0.207	-0.061	-0.074	-0.551	-8.469	13 425
400	0602173C	1651	BMD	6.234	0.000	6.234	-0.053	0.000	0.000	0.000	-0.056	-0.022	-0.102	-0.235	10.896	16 895
400	0602173C	1660	USARMY	7 961	0 000	7.961	-0.067	0.000	0.000	0.000	-0.073	-0.029	-0.044	-0.213	0.001	7.749
400	0602173C	1660	DNA	3.296	0.000	3.298	-0.026	0.000	0.000	0 000	-0.030	-0.012	-0.018	-0.088	0 000	3 210
400	0602173C	1660	USAF	5.473	0.000	5.473	-0.046	0.000	0.000	0.000	-0.050	-0.020	-0.030	-0.146	0.000	5.327
400	0602173C	1660	USN	5.473	0.000	5.473	-0.046	0.000	0.000	0.000	-0.050	-0.020	-0.030	-0.146	0.000	5 327
400	0602173C	1660	BMD	20.364	0.000	20.364	-0.172	0.000	-0.079	0.000	-0 189	-0.074	-0.116	-0 630	0 063	19 817
			Subtotal	93.306	0.000	93.306	-0.766	0.000	-0.079	0.000	-0.861	-0.336	-0.513	-2.577	-1 501	89 230
400	0603173C	1155	BMD	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.014	-0.014	1 553	1.539
400	0603173C	1161	USARMY	4.945	0.000	4.945	-0.026	0.000	0.000	0.000	-0.045	-0.018	-0.016	-0.107	-3 047	1.791
400	0603173C	1161	USAF	5.117	0 000	5.117	-0.026	0.000	0 000	0.000	-0.047	-0 018	-0.033	-0.124	0.075	5 068
400	0603173C	1161	USN	6.531	0.000	6.531	-0.034	0.000	0.000	0.000	-0.060	-0.023	-0.019	-0.136	-3.162	3.233
400	0603173C	1161	BMD	6 907	0.000	6.907	-0.036	0.000	0.000	0.000	-0.063	-0.025	-0.044	-0.168	3.956	10 697
400	0603173C	1270	USARMY	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	-0.058	-0.056	13.359	13 301
400	0603173C	1270	USAF	1 841	0 000	1.841	-0.010	0.000	0.000	0.000	-0.017	-0.006	-0.018	-0.051	1 191	2 981
400	0603173C	1270	USN	1.443	0.000	1.443	-0.007	0.000	0.000	0 000	-0.013	-0.005	-0.010	-0.035	0 021	1 429
400	0603173C	1270	BMD	16 447	0.000	16.447	-0.096	0.000	0.000	0.000	-0.169	-0.066	-0.034	-0.365	-12.894	5 186
400	0603173C	1360	USARMY	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000	2 513	2 513
APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 96 Current Position
400	0603173C	1360	USAF	0 000	0.000	0.000	0.000	0.000	0.000	0.0[illegible]	0.000	0.000	-0.008	-0.[illegible]	5.723	5 717
400	0603173C	1360	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000	-0.001	-0.0[illegible]1	1.791	1 790

Ballistic Missile Defense Organization
Summary of FY 96 Financial Operations

400	0603173C	1360	BMD	29.854	50.000	79.854	-0.413	0.000	-0.021	0.000	-0.731	-0.285	-0.423	-1.873	-12.856	65.325
400	0603173C	1660	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0.003	0.003	0.000
400	0603173C	1660	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0.003	0.003	0.000
400	0603173C	1660	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	0.005	0.000
400	0603173C	1860	BMD	4.302	0.000	4.302	-0.022	0.000	0.000	0.000	-0.040	-0.016	-0.019	-0.097	0.780	4.985
			Subtotal	79.387	50.000	129.387	-0.670	0.000	-0.021	0.000	-1.185	-0.462	-0.708	-3.048	-0.804	125.537
400	0603661C	2260	USARMY	576.327	0.000	576.327	-4.857	0.000	-0.176	0.000	-5.251	-2.049	-3.132	-15.465	-6.107	554.755
400	0603863C	2358	USN	23.188	0.000	23.188	-0.196	0.000	-0.008	0.000	-0.211	-0.083	-0.127	-0.825	-0.251	22.312
400	0603864C	3261	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.016	-0.016	2.805	2.789
400	0603864C	3261	USAF	17.160	0.000	17.160	-0.144	0.000	-0.060	0.000	-0.183	-0.071	-0.045	-0.493	-8.410	8.257
400	0603864C	3261	USN	4.200	0.000	4.200	-0.035	0.000	0.000	0.000	-0.045	-0.017	-0.026	-0.123	0.517	4.594
400	0603864C	3261	BMD	2.871	0.000	2.871	-0.024	0.000	0.000	0.000	-0.031	-0.012	-0.060	-0.127	3.697	6.441
400	0603864C	3281	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.006	-0.006	1.085	1.079
			Subtotal	24.231	0.000	24.231	-0.203	0.000	-0.060	0.000	-0.259	-0.100	-0.153	-0.765	-0.306	23.160
400	0603667C	2263	USN	0.000	185.000	185.000	0.000	0.000	0.000	0.000	-1.710	-0.667	-1.020	-3.397	5.655	187.258
400	0603668C	1266	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.036	-0.036	6.400	6.364
400	0603668C	1266	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.042	-0.042	7.417	7.375
400	0603668C	1266	USN	30.442	170.000	200.442	0.000	0.000	0.000	0.000	-1.853	-0.723	-0.825	-3.401	-51.885	145.156
400	0603668C	1266	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.202	-0.202	35.872	35.670
			Subtotal	30.442	170.000	200.442	0.000	0.000	0.000	0.000	-1.853	-0.723	-1.106	-3.661	-2.196	194.565
400	0603669C	1262	USARMY	30.442	-10.000	20.442	-0.172	0.000	0.000	0.000	-0.188	-0.073	-0.112	-0.545	-0.222	19.675
400	0603670C	1265	USAF	49.061	-49.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
400	0603871C	1151	USARMY	44.251	0.000	44.251	-0.185	0.000	0.000	0.000	-0.406	-0.159	-0.266	-1.016	67.186	110.401
400	0603871C	1151	USAF	21.674	0.000	21.674	-0.091	0.000	0.000	0.000	-0.199	-0.078	-0.147	-0.515	10.189	31.348
400	0603871C	1151	USN	16.271	0.000	16.271	-0.068	0.000	0.000	0.000	-0.150	-0.058	-0.013	-0.289	-13.682	2.300
400	0603871C	1151	BMD	20.479	0.000	20.479	-0.086	0.000	0.000	0.000	-0.188	-0.074	-0.144	-0.492	24.688	44.875
400	0603871C	1155	USARMY	10.525	0.000	10.525	-0.044	0.000	0.000	0.000	-0.096	-0.038	-0.050	-0.228	3.816	14.113
APPN	Program Element	PMA	Exec Agent	FY 96 President's Budget	FY 96 Congress Adjusts	FY 96 APPN	Congress Inflation	Congress ADP	Congress FFRDC	Civ Under Exec	Bosnia	JCS Billpayer	Undist Inflation Reduction	Total Reductions	Internal Realignments	FY 98 Current Position
400	0603871C	1155	USAF	1.568	0.000	1.566	-0.007	0.000	0.000	0.000	-0.014	-0.006	-0.009	-0.036	0.001	1.533
400	0603871C	1155	USN	1.516	0.000	1.516	-0.006	0.000	0.000	0.000	-0.014	-0.005	-0.013	-0.038	0.807	2.287
400	0603871C	1155	BMD	1.061	0.000	1.061	-0.004	0.000	0.000	0.000	-0.010	-0.004	-0.005	-0.023	-0.164	0.874
400	0603871C	1267	USARMY	121.919	0.000	121.919	-0.511	0.000	-0.416	0.000	-1.120	-0.437	-0.657	-3.140	155.320	274.099
400	0603871C	1267	USAF	4.476	0.000	4.476	-0.019	0.000	0.000	0.000	-0.041	-0.016	-0.024	-0.100	-0.291	4.087
400	0603871C	1267	BMD	0.249	0.000	0.249	-0.001	0.000	0.000	0.000	-0.002	-0.001	-0.001	-0.005	4.929	5.173
400	0603871C	1460	USARMY	6.533	0.000	6.533	-0.027	0.000	0.000	0.000	-0.060	-0.023	-0.034	-0.144	0.211	6.600
400	0603871C	1460	USAF	6.331	0.000	6.331	-0.027	0.000	0.000	0.000	-0.058	-0.023	-0.050	-0.158	7.457	13.630

Ballistic Missile Defense Organization
Summary of FY 98 Financial Operations

400	0603871C	1460	USN	0.303	0.000	0.303	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.001	-0.006	0.003	0.300
400	0603871C	1460	BMD	16.593	0.000	16.593	-0.069	0.000	0.000	0.000	-0.152	-0.060	-0.084	-0.365	40.332	56.560
400	0603871C	1460	NTB/NTF	3.778	0.000	3.778	-0.016	0.000	0.000	0.000	-0.035	-0.013	-0.011	-0.075	0.222	3.925
400	0603871C	3152	USARMY	2.728	0.000	2.728	-0.011	0.000	0.000	0.000	-0.025	-0.010	-0.007	-0.053	-0.103	2.572
400	0603871C	3152	USAF	0.554	0.000	0.554	-0.002	0.000	0.000	0.000	-0.005	-0.002	-0.004	-0.013	0.459	1.000
400	0603871C	3152	BMD	14.875	0.000	14.875	-0.062	0.000	0.000	0.000	-0.137	-0.053	-0.112	-0.364	35.842	50.353
400	0603871C	3152	NTB/NTF	1.200	0.000	1.200	-0.005	0.000	0.000	0.000	-0.011	-0.004	-0.003	-0.023	1.923	3.100
400	0603871C	3153	BMD	3.110	0.000	3.110	-0.013	0.000	0.000	0.000	-0.029	-0.011	-0.017	-0.070	-0.057	2.983
400	0603871C	3153	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.050
400	0603871C	3157	USARMY	0.276	0.000	0.276	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.001	-0.006	0.004	0.274
400	0603871C	3157	BMD	1.069	0.000	1.069	-0.004	0.000	0.000	0.000	-0.010	-0.004	-0.008	-0.026	0.367	1.410
400	0603871C	3160	USARMY	2.435	0.000	2.435	-0.010	0.000	0.000	0.000	-0.022	-0.009	-0.014	-0.055	0.329	2.709
400	0603871C	3160	USAF	0.426	0.000	0.426	-0.002	0.000	0.000	0.000	-0.004	-0.001	-0.002	-0.009	0.005	0.422
400	0603871C	3160	BMD	11.608	0.000	11.608	-0.049	0.000	0.000	0.000	-0.106	-0.042	-0.054	-0.251	6.229	17.586
400	0603871C	3160	SPCECMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	-0.002	0.367	0.365
400	0603871C	3265	USARMY	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.493	0.800
400	0603871C	3265	USAF	0.187	0.000	0.187	-0.001	0.000	0.000	0.000	-0.001	-0.001	-0.001	-0.004	0.317	0.500
400	0603871C	3265	USN	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.193	0.500
400	0603871C	3265	BMD	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	0.000	-0.005	-0.309	0.000
400	0603871C	3265	SPCECMD	0.314	0.000	0.314	-0.001	0.000	0.000	0.000	-0.003	-0.001	-0.002	-0.007	0.893	1.200
400	0603871C	3270	USARMY	0.647	0.000	0.647	-0.003	0.000	0.000	0.000	-0.006	-0.002	-0.003	-0.014	0.026	0.659
400	0603871C	3270	USAF	2.937	0.000	2.937	-0.012	0.000	0.000	0.000	-0.027	-0.011	-0.014	-0.064	-0.351	2.522
400	0603871C	3270	BMD	4.190	0.000	4.190	-0.018	0.000	0.000	0.000	-0.039	-0.015	-0.024	-0.096	0.279	4.373
400	0603871C	3270	NTB/NTF	0.498	0.000	0.498	-0.002	0.000	0.000	0.000	-0.004	-0.002	-0.003	-0.011	-0.002	0.485
400	0603871C	3352	USARMY	2.936	0.000	2.936	-0.012	0.000	0.000	0.000	-0.027	-0.010	-0.022	-0.071	0.927	3.792
400	0603871C	3352	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.149	0.148
400	0603871C	3352	USN	0.249	0.000	0.249	-0.001	0.000	0.000	0.000	-0.002	-0.001	-0.001	-0.005	-0.001	0.243
400	0603871C	3352	BMD	2.663	0.000	2.663	-0.011	0.000	0.000	0.000	-0.024	-0.010	-0.006	-0.051	-1.538	1.074
400	0603871C	3352	NTB/NTF	9.931	0.000	9.931	-0.042	0.000	0.000	0.000	-0.081	-0.036	-0.081	-0.230	1.175	10.876
				FY 96	FY 96					Civ			Undist			FY 98
	Program		Exec	President's	Congress	FY 96	Congress	Congress	Congress	Under		JCS	Inflation	Total	Internal	Current
APPN	Element	PMA	Agent	Budget	Adjusts	APPN	Inflation	ADP	FFRDC	Exec	Bosnia	Billpayer	Reduction	Reductions	Realignments	Position
400	0603871C	3359	USARMY	7.563	0.000	7.563	-0.032	0.000	0.000	0.000	-0.070	-0.027	-0.060	-0.189	15.706	23.080
400	0603871C	3359	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.011	-0.011	1.911	1.900
400	0603871C	3359	BMD	10.341	0.000	10.341	-0.043	0.000	0.000	0.000	-0.095	-0.037	-0.004	-0.179	-6.632	3.530
400	0603871C	3360	USARMY	6.194	0.000	6.194	-0.026	0.000	0.000	0.000	-0.057	-0.022	-0.019	-0.124	-2.675	3.395
400	0603871C	3360	USAF	2.622	0.000	2.622	-0.011	0.000	0.000	0.000	-0.024	-0.009	-0.012	-0.056	-0.505	2.061
400	0603871C	3360	USN	1.169	0.000	1.169	-0.005	0.000	0.000	0.000	-0.011	-0.004	-0.004	-0.024	-0.325	0.820
400	0603871C	3360	BMD	1.426	0.000	1.426	-0.006	0.000	0.000	0.000	-0.013	-0.005	-0.032	-0.056	2.693	4.063
400	0603871C	5050	BMD	0.000	375.000	375.000	-1.573	0.000	0.000	0.000	-3.445	-1.344	-2.067	-8.429	-366.571	0.000
			Subtotal	370.621	375.000	745.621	-3.123	0.000	-0.416	0.000	-6.848	-2.673	-4.084	-17.143	-7.728	720.750
400	0603872C	1155	USARMY	33.462	-1.777	31.685	-0.281	0.000	0.000	0.000	-0.292	-0.114	-0.158	-0.845	-3.074	27.766
400	0603872C	1155	USAF	2.612	-0.389	2.223	-0.020	0.000	0.000	0.000	-0.021	-0.008	-0.014	-0.063	0.346	2.506
400	0603872C	1155	USN	2.612	-0.216	2.396	-0.021	0.000	0.000	0.000	-0.022	-0.009	-0.012	-0.064	-0.304	2.028
400	0603872C	1155	BMD	5.325	0.000	5.325	-0.047	0.000	0.000	0.000	-0.049	-0.019	-0.026	-0.1	-0.500	4.684

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400	080387	1181	USARMY	3.782	-1.212	2.570	-0.023	0.000	0.000	0.000	-0.024	[illegible]	0.005	[illegible]	[illegible]	0.921
400	080387	1170	USARMY	39.492	0.000	39.492	-0.350	0.000	0.000	0.000	-0.384	[illegible]	-0.203	[illegible]	[illegible]	35.747
400	0603872C	1170	BMD	8.966	-1.428	5.540	-0.049	0.000	0.000	0.000	-0.051	[illegible]	0.000	[illegible]	[illegible]	5.530
400	0603872C	1270	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.049	-0.049	8.824	8.775
400	0603872C	1270	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	0.938	0.933
400	0603872C	1294	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.706	3.706
400	0603872C	2160	USARMY	1.990	-0.854	1.136	-0.010	0.000	0.000	0.000	-0.010	-0.004	0.000	-0.024	-1.112	0.000
400	0603872C	2160	USAF	24.879	-1.738	23.141	-0.205	0.000	0.000	0.000	-0.214	-0.084	-0.113	-0.616	2.617	19.908
400	0603872C	2160	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.098
400	0603872C	2259	USARMY	54.667	-0.866	53.801	-0.476	0.000	0.000	0.000	-0.498	-0.194	-0.205	-1.371	-16.385	36.045
400	0603872C	2259	BMD	1.891	0.000	1.891	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.165	-0.206	15.176	16.861
400	0603872C	3153	BMD	9.330	0.000	9.330	-0.083	0.000	0.000	0.000	-0.086	-0.034	-0.050	-0.253	-0.446	8.631
400	0603872C	3153	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.246	0.245
400	0603872C	3157	USARMY	0.826	0.000	0.826	-0.007	0.000	0.000	0.000	-0.008	-0.003	-0.005	-0.023	-0.009	0.794
400	0603872C	3157	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.025
400	0603872C	3157	USN	0.027	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027
400	0603872C	3157	BMD	3.163	-0.216	2.987	-0.026	0.000	0.000	0.000	-0.027	-0.011	-0.014	-0.078	-0.338	2.553
400	0603872C	3160	USAF	1.045	-0.124	0.921	-0.008	0.000	0.000	0.000	-0.008	-0.003	-0.004	-0.023	-0.170	0.728
400	0603872C	3160	BMD	0.906	-0.220	0.686	-0.006	0.000	0.000	0.000	-0.006	-0.002	-0.002	-0.016	-0.292	0.378
400	0603872C	3251	USARMY	2.189	-0.260	1.929	-0.017	0.000	0.000	0.000	-0.018	-0.007	-0.009	-0.051	-0.371	1.507
400	0603872C	3251	USAF	1.891	0.000	1.891	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.005	-0.048	-0.885	0.960
400	0603872C	3251	USN	1.692	0.000	1.692	-0.015	0.000	0.000	0.000	-0.016	-0.006	-0.009	-0.048	-0.016	1.630
				FY 96	FY 96					Civ			Undist			FY 96
	Program		Exec	President's	Congress	FY 96	Congress	Congress	Congress	Under		JCS	Inflation	Total	Internal	Current
APPN	Element	PMA	Agent	Budget	Adjusts	APPN	Inflation	AOP	FFRDC	Exec	Bosnia	Billpayer	Reduction	Reductions	Realignments	Position
400	0603872C	3251	BMD	42.064	-0.692	41.372	-0.386	0.000	-0.586	0.000	-0.382	-0.149	-0.281	-1.744	4.194	43.822
400	0603872C	3265	USAF	0.324	0.000	0.324	-0.003	0.000	0.000	0.000	-0.003	-0.001	-0.001	-0.008	-0.189	0.127
400	0603872C	3285	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.097	0.096
400	0603872C	3265	BMD	16.519	-0.901	15.618	-0.138	0.000	0.000	0.000	-0.144	-0.056	-0.085	-0.423	-0.221	14.974
400	0603872C	3285	SPCECMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	0.097	0.096
400	0603872C	3270	USARMY	1.940	-0.085	1.875	-0.017	0.000	0.000	0.000	-0.017	-0.007	-0.008	-0.049	-0.420	1.406
400	0603872C	3270	USAF	8.806	-0.853	7.953	-0.070	0.000	0.000	0.000	-0.073	-0.029	-0.022	-0.194	4.091	3.668
400	0603872C	3270	BMD	12.571	-0.944	11.627	-0.103	0.000	0.000	0.000	-0.107	-0.042	-0.069	-0.321	0.956	12.262
400	0603872C	3270	NTB/NTF	1.493	0.000	1.493	-0.013	0.000	0.000	0.000	-0.014	-0.005	-0.013	-0.045	0.900	2.348
400	0603872C	3352	USARMY	31.994	-0.655	31.339	-0.278	0.000	0.000	0.000	-0.289	-0.113	-0.187	-0.887	2.570	33.042
400	0603872C	3352	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	-0.002	0.439	0.437
400	0603872C	3352	USN	0.746	0.000	0.748	-0.007	0.000	0.000	0.000	-0.007	-0.003	-0.015	-0.032	1.924	2.638
400	0603872C	3352	BMD	7.990	0.000	7.990	-0.071	0.000	0.000	0.000	-0.074	-0.029	-0.007	-0.181	-6.629	1.180
400	0603872C	3352	NTB/NTF	29.791	-0.433	29.358	-0.260	0.000	0.000	0.000	-0.271	-0.106	-0.182	-0.819	3.573	32.112
400	0603872C	3354	USARMY	26.091	-2.854	23.237	-0.206	0.000	0.000	0.000	-0.214	-0.084	-0.070	-0.574	-10.481	12.182
400	0603872C	3354	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.037	-0.037	6.517	6.480
400	0603872C	3354	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.050
400	0603872C	3359	USARMY	17.897	-2.881	15.036	-0.133	0.000	0.000	0.000	-0.139	-0.054	-0.109	-0.435	4.616	19.217
400	0603872C	3359	DNA	2.513	-0.689	1.824	-0.016	0.000	0.000	0.000	-0.017	-0.007	-0.005	-0.045	-0.905	0.874
400	0603872C	3359	USAF	0.628	0.000	0.628	-0.006	0.000	0.000	0.000	-0.006	-0.002	-0.006	-0.020	0.430	1.038

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400	0603672C	3359	USN	2.199	0.000	2.199	-0.019	0.000	0.000	0.000	-0.020	[illegible]	-0.019	-0.066	1.284	3.417	
400	0603872C	3359	BMD	21.902	-0.718	21.184	-0.188	0.000	0.000	0.000	-0.195	-0.076	-0.057	-0.516	-11.580	9.098	
400	0603872C	3359	NTB/NTF	2.198	0.000	2.198	-0.019	0.000	0.000	0.000	-0.020	-0.008	0.008	-0.055	-0.660	1.483	
400	0603872C	3360	USARMY	18.585	-0.476	18.109	-0.180	0.000	0.000	0.000	-0.187	-0.065	-0.071	-0.483	-5.302	12.344	
400	0603872C	3360	USAF	7.866	0.000	7.866	-0.070	0.000	0.000	0.000	-0.073	-0.028	-0.044	-0.215	0.032	7.683	
400	0603872C	3360	USN	3.508	-0.534	2.974	-0.028	0.000	0.000	0.000	-0.027	-0.011	-0.026	-0.090	1.680	4.564	
400	0603872C	3360	BMD	4.278	-0.227	4.051	-0.036	0.000	0.000	0.000	-0.041	-0.016	-0.032	-0.125	1.645	5.571	
			Subtotal	460.470	-22.000	438.470	-3.883	0.000	-0.566	0.000	-4.046	-1.583	-2.412	-12.490	-4.795	421.185	
400	0604884C	3261	USARMY	14.301	0.000	14.301	-0.120	0.000	0.000	0.000	-0.094	-0.037	-0.025	-0.276	-9.694	4.331	
400	0604884C	3261	USAF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.015	-0.015	3.546	3.531	
400	0604884C	3261	USN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.011	-0.011	1.952	1.941	
400	0604884C	3261	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	4.087	4.082	
			Subtotal	14.301	0.000	14.301	-0.120	0.000	0.000	0.000	-0.094	-0.037	-0.056	-0.307	-0.109	13.885	
400	0604865C	2257	USARMY	247.921	104.500	352.421	-2.971	0.000	0.000	0.000	-3.229	-1.261	-1.927	-9.388	19.975	363.008	
400	0604866C	2257	USARMY	19.485	0.000	19.485	-0.164	0.000	0.000	0.000	-0.176	-0.070	-0.106	-0.518	0.000	18.967	
400	0604867C	2263	USARMY	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.029	-0.029	0.029	0.000	
400	0604867C	2263	USN	237.473	-140.000	97.473	0.000	0.000	0.000	0.000	-0.877	-0.342	-0.493	-1.712	-0.029	95.732	
400	0604867C	2263	BMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
			Subtotal	237.473	-140.000	97.473	0.000	0.000	0.000	0.000	-0.877	-0.342	-0.522	-1.741	0.000	95.732	
400	0605218C	4151	USARMY	47.348	-10.000	37.348	-1.115	0.000	0.000	0.000	-0.334	-0.130	-0.194	-1.773	-1.092	34.483	
400	0605218C	4151	USAF	4.473	0.000	4.473	0.133	0.000	0.000	0.000	-0.040	-0.016	-0.030	-0.219	1.172	5.426	
400	0605218C	4151	USN	6.960	0.000	6.960	-0.208	0.000	0.000	0.000	-0.062	-0.024	-0.038	-0.332	0.147	6.775	
400	0605218C	4151	BMD	22.111	0.000	22.111	-0.028	0.000	0.000	-0.632	-0.197	-0.077	-0.128	-1.062	1.836	22.885	
400	0605218C	4151	NTB/NTF	3.981	-2.000	1.981	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-1.981	0.000	
400	0605218C	4154	BMD	15.203	-2.000	13.203	0.000	0.000	0.000	-0.394	-0.118	-0.048	-0.077	-0.635	0.075	12.643	
400	0605218C	4162	USARMY	9.839	0.000	9.839	0.000	-0.294	0.000	0.000	-0.088	-0.034	-0.069	-0.485	2.969	12.323	
400	0605218C	4162	USAF	8.948	0.000	8.948	0.000	-0.267	0.000	0.000	-0.080	-0.031	-0.017	-0.395	-5.387	3.166	
400	0605218C	4162	USN	0.206	0.000	0.206	0.000	-0.006	0.000	0.000	-0.002	-0.001	-0.001	-0.010	-0.092	0.104	
400	0605218C	4162	BMD	66.473	-18.000	50.473	0.000	-1.563	0.000	-0.002	-0.471	-0.180	-0.288	-2.484	-0.329	47.880	
400	0605218C	4162	NTB/NTF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.006	-0.006	1.071	1.065	
			Subtotal	185.542	-30.000	156.542	-1.484	-2.130	0.000	-1.028	-1.392	-0.539	-0.828	-7.401	-1.611	146.530	
	TOTAL RDT&E			2442.199	633.439	3076.638	-18.829	-2.130	-1.316	-1.028	-28.182	-11.000	-16.806	-79.089	0.000	2998.549	
500	0603871C	3157	BMD	0.832	0.000	0.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.832	
500	0603872C	3157	BMD	2.577	0.000	2.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.577	
500	0604861C	2260	USARMY	13.600	0.000	13.600	0.000	0.000	0.000	[illegible]	0.000	[illegible]	0.000	0.000	[illegible]	13.600	
	TOTAL MILCON			17.009	0.000	17.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.009	
TOTAL BMDO				2912.916	528.939	3441.855	-21.259	-2.130	-1.316	-1.028	-38.448	-11.000	-16.805	-89.963	0.000	3351.872	

BOOST PHASE INTERCEPT

QUESTION: Was Airborne Laser considered as part of the Missile Defense Review? If so, how and what were the results of the review as it affects ABL? If not, why was it exempted from the review?

ANSWER: The Missile Defense Review included an assessment of boost phase intercept (BPI) concepts, including Airborne Laser (ABL), Space Based Laser (SBL), a fighter-based Airborne Interceptor (ABI), and Israeli and US concepts for an unmanned aerial vehicle (UAV) kinetic energy BPI systems. The study showed that each concept had particular strengths and limitations. ABL showed good performance in many scenarios. In other scenarios, the threat had some launch locations which could not be defended with static ABL combat air patrol (CAP) orbit locations. The review recommended funding the Air Force airborne laser at about $775 million in the Air Force budget over the Future Years Defense Plan (FYDP) for FY 1997-2001. The program will conduct several key engineering tests in FY 1998 to validate the airborne laser concept.

QUESTION: What is the operational concept associated with the Airborne Laser (ABL)?

ANSWER: ABL will operate from a central CONUS base and deploy worldwide within 14 hours, fully combat ready, and assume an immediate Combat Air Patrol (CAP). Upon entry into a theater of operations, the Joint Force Commander (JFC) determines the requirement for continuous and/or overlapping coverage of ABL CAP orbits. Once on station, the ABL weapon system orbits at high altitude for 15 hours. In-flight refueling and rotation of aircraft provides capability for near continuous coverage. ABL CAP orbit locations are fluid and are moved based on current intelligence, threats to the theater, level of air superiority, the JFC's coverage requirements, weather conditions, and optimal deterrence and engagement potential.

ABL's onboard surveillance sensors autonomously detect, acquire, and track multiple theater ballistic missile launches. It is fully integrated into the joint BMC4I architecture to interchange cueing data with other theater missile defense systems and provide theater battlespace situational awareness. Once ABL detects a TBM and fine track is established, the beam control/fire control system directs the High Energy Laser on the TBM booster. The booster components are under such internal stress that the heating causes a stress fracture and results in catastrophic failure of the booster. ABL performs a real-time kill assessment, and then engages the next priority target.

QUESTION: How many ABLs will be needed per major regional conflict and why?

ANSWER: The currently planned total ABL fleet size is 7 aircraft, of which 5 will be available for continuous operational duty. The remaining two aircraft are considered to be in phase inspection, undergoing modifications, or down for maintenance and repair. A total of five ABL aircraft will be deployed to support one theater of operations and can provide two near-continuous 24 hour ABL Combat Air Patrol (CAP) orbits. Two orbits can provide overlapping coverage in small theaters. In large theaters, CAPs can be located to cover as many potential launch sites as possible. If a requirement arises to support a second theater of operations, two ABL aircraft will be redeployed from theater, with one ABL aircraft deployed from CONUS. Three ABL aircraft will be available in each theater of operations to support one continuous ABL CAP orbit in each theater.

QUESTION: What will be the operational requirements and costs associated with this approach?

ANSWER: By targeting TBMs in boost phase, ABL provides an independent and integrated TMD tier with a long range capability of autonomously detecting, acquiring, tracking, identifying and negating TBMs. The ABL aircraft must be air refuelable, remain on station at optimum altitude for extended periods of time, possess a laser magazine sufficient to respond to multiple launches, include an autonomous wide area surveillance detect and track capability, and include a communications/avionics suite which allows for world-wide deployment and integration into the joint theater battle management architecture. The current program office estimate of cost is $4.784B for Concept Design, DEM/VAL, EMD and Production phases.

QUESTION: How does ABL compare in terms of cost, schedule risk, and performance with the UAV-BPI concepts?

ANSWER: [Deleted.]

QUESTION: How much does the Department plan to spend in fiscal year 1997 on the UAV BPI concept?

ANSWER: The FY1997 President's Budget Submission funds the UAV BPI program at nominally $30M over FY1996-FY1998. Funding has been realigned due to contractual and international execution limitations. The program remains a $30M program across three fiscal years (FY1996-FY1998). The Joint Theater Missile Defense Program Element totals remain constant over these years. The new funding profile for UAV BPI is:

($=Millions)

FY1996	FY1997	FY1998
$5.671	$10.273	$13.853

BMDO plans to spend $10.273M on the UAV BPI effort during FY1997. $4.2M of these funds will conclude the U.S. UAV BPI concept definition and initiate risk mitigation efforts for this concept. $6.073M will fund the cooperative U.S. - Israeli risk mitigation efforts for the Israeli Boost Phase Intercept System.

QUESTION: Please give us a detailed accounting of how you spent the funds appropriated for UAV BPI.

ANSWER: The FY1997 President's Budget Submission funded the UAV BPI program at nominally $30M over FY1996-FY1998. The funding has been realigned due to contractual and international execution limitations. The program remains a $30M program across the three fiscal years (FY1996-FY1998).

Funding for the UAV BPI effort in FY1996 is $5.671M. $1.671M are being used to initiate a 21-month cooperative U.S. - Israeli risk mitigation effort for the Israeli Boost Phase Intercept System. Focus of the U.S. funded parts of this effort are the elements of the IBIS program that may be applicable to a U.S. UAV BPI system (interceptor, BMC4/I, and search and track instrumentation). $4.0M are being spent to develop a U.S. Concept of Operations (CONOPS) and a UAV BPI concept to support these CONOPS. This tri-service effort, consisting of five Integrated Product Teams (IPTs) is funded as follows:

CONOPS IPT (Navy PEO-TAD Lead)	$1.000M
UAV IPT (DARPA High Altitude Endurance Program Office Lead)	$0.650M
Interceptor IPT (Air Force Space and Missile Center Lead)	$0.750M
Sensors IPT (Navy Air Warfare Center-China Lake Lead)	$0.350M
Systems Engineering IPT (BMDO Lead)	$1.250M
TOTAL	$4.000M

CORPS SAM

QUESTION: How have you allocated the funds appropriated last year?

ANSWER: In FY95 the Corps SAM/MEADS program spent $14.223M. Funding was allocated to the following tasks:

$5.1M - Initiated support contracts to provide technical analysis in specialty areas (for example: lethality, survivability, system simulation/modeling and Battle Management/Command, Control, Communications, Computers, and Intelligence (BMC4I)).

$7.523M - Supported in-house efforts that included overall program management support (for example: continued to discuss, negotiate and develop international cooperative plans/agreements to include the MOU and NATO Charter; established international program management structure; continued Research, Development, and Engineering Center (RDEC) technology assessment efforts; continued threat/scenario updates; continued modeling and simulation efforts; conducted source selection activities for the International Teaming/Project Definition-Validation (PD-V) Contract).

$1.6M - Continued support to other Government agencies for performance of independent assessment activities and combat developer studies and analyses.

In FY96 the Corps SAM/MEADS program will spend $19.675M on the following tasks:

$16.3M - Prime contracts to execute International Teaming and initiate PD-V Phase.

$1.875M - Support contracts to provide technical analysis and tools in specialty areas (for example: lethality, BMC4I, system simulations, Forward Area Air Defense/CORPS SAM integration)

$ 1.5M - Overall management/support to execute the cooperative program in accordance with the NATO Charter and MOU for PD-V (includes salaries, benefits, travel, and other administrative and personnel related expenses).

QUESTION: For which elements of the Corp SAM program will our international partners be responsible? How confident are you that this partnership will prove to be productive? Why?

ANSWER: Detailed responsibilities for the elements of the Medium Extended Air Defense System (MEADS) program have not yet been determined. Generally, the work will be assigned according to a balanced distribution among the partners's industries of meaningful work for prime contracting and system level and subsystem tasks, technical capabilities, the optimum use of existing technology, and reasonable costs and schedule using competitive criteria. The Project Definition and Validation phase of MEADS, which is the first phase of the program, will develop system specifications and conduct validation efforts that will provide the basis for the follow-on phases of the program.

There are several reasons to believe that the MEADS international partnership will be successful. MEADS represents an appropriate form of allied cooperation in the development of a missile defense system for which the United States and our allies share a valid military requirement. Since the program is just entering the project definition and validation phase, common military requirements of the partners will be addressed up front which will create a strong incentive for everyone to participate to the fullest and to continue to subsequent phases.

Moreover, the outcome of the MEADS program will be viewed on both sides of the Atlantic as one of the most important tests of future trans-Atlantic defense cooperation. At a time when both sides of the Atlantic are experiencing declining defense budgets and smaller procurements, we should welcome collaborative ventures, such as MEADS, where there are compatible requirements.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

UPPER AND LOWER TIER TESTING

QUESTION: General O'Neill, could you describe BMDO's specific plans for testing Navy lower tier and upper tier missile defense systems, noting the schedule and location for these program tests?

ANSWER: Numerous test and exercise events are planned to support Navy TBMD R&D and Fleet activities. The Extended Tracking and Control (ET&C) Experiment (June 1995), has already been conducted at PMRF. A Joint TBMD R&D tracking exercise is planned for June 1996. Fleet training and non-TBMD R&D activities are ongoing, and will continue into the foreseeable future. Major TBMD events include:

- Navy Area TBMD (Lower Tier) Risk Reduction Testing - FY96 (up to 5 flights - White Sands Missile Range, NM)
- Navy Area TBMD Developmental Testing (DT) - FY99 (10 flights - WSMR)

- Navy Area TBMD At-Sea Engineering and Manufacturing Development (EMD) Testing - 4th QTR FY98 - 4th QTR FY99 (2 flights- PMRF)
- Navy Theater Wide TBMD (Upper Tier) Testing (SM-X LEAP) - 4th QTR FY99 - 3rd QTR FY01 (5 flights - PMRF)
- Navy Area TBMD Testing (SM-2 Block IVA) - 1st - 2nd QTR FY01 (25 flights - PMRF)
- Post Repair Test and Trial and Combat Systems Ship Qualification Trials for TBMD-capable ships - FY01 and beyond (PMRF)

QUESTION: General O'Neill, what is the status of environmental analyses required to support Navy upper tier and lower tier missile tests?

ANSWER: The Navy upper tier and lower tier programs encompass a wide range of tests at various locations. They also vary in complexity and potential impact to the environment. We have a two-step approach to providing environmental coverage for these tests. First, we conduct a literature review to determine if environmental analyses have been done for similar tests and circumstances. If analyses exist, we select and synthesize pertinent data for use in our decision-making. Where required, we mitigate the impact we caused to the environment. In all cases, we record our efforts in memorandums for the record (MFR) or records of environmental consideration (REC).

If no environmental analysis exists for our planned tests, we must complete a new analysis and document our findings with an Environmental Assessment (EA) or Environmental Impact Statement (EIS). In the case of Navy Upper and Lower Tier, we are working on three documents which will analyze the impact of Navy and other service testing -- the Navy Pacific Missile Range Facility (PMRF) range-wide EIS, the Eglin Gulf Test Range (EGTR) EIS, and an update to the Standard Missile EA at White Sands Missile Range. Presently, we are determining the scope of BMDO tests to be covered by the PMRF range-wide EIS, and plan to complete the document by FY99, in time for Navy Lower Tier developmental (DT) and operational testing (OT). Similarly, we are in the initial phases of the EGTR EIS, determining the BMDO tests requiring coverage and the potential environmental issues. The Standard Missile EA update will also be complete by FY99, in time for missile developmental testing (DT) in FY99. Should additional analyses be required, we will conduct them and document our findings and decisions.

PACIFIC MISSILE TEST RANGE FACILITY

QUESTION: Do all such analyses cover the use of the Pacific Missile Range Facility to support these Navy test programs?

ANSWER: No. Only the PMRF range-wide EIS covers testing at that location. The Eglin Gulf Test Range EIS and the Standard Missile EA cover actions in the Gulf of Mexico and White Sands Missile Range, respectively.

QUESTION: General O'Neill, could you assure me that the appropriate BMDO officials will meet with PMRF representatives to make sure both sides exchange the information necessary to allow test planning and preparation to proceed?

ANSWER: BMDO and PEO(TAD) are committed to testing the Navy Area and Theater Wide TBMD programs at PMRF. We are currently identifying requirements and resources necessary for successful program execution. Several joint working groups, including PMRF personnel, will review all test operation planning and preparation. These groups will look at all issues, including required range (both fixed and mobile) instrumentation, target requirements, data analysis, and scenario design and executability.

UPPER AND LOWER TIER TESTING

QUESTION: General O'Neill, for the record, could you identify all BMDO investments in facilities, site upgrades, or equipment to support Navy upper tier and lower tier missile tests, noting the annual and total cost of these projects?

ANSWER: The Navy programs are just now maturing to the point that specific resource requirements for testing are being defined. We are in the process, in conjunction with Navy PEO Theater Air Defense, of forming working groups to address such test resource topics as evaluation data requirements, targets and launch support systems, telemetry collection, instrumentation, and test operations. PMRF is represented on the last three working groups as well as membership on the Steering Committee. We anticipate requirements for significant facility and instrumentation upgrades at PMRF, starting NLT FY98, to satisfy Navy Lower Tier and Upper Tier testing.

We have invested in several projects that are designed to provide mobile test assets that can be used to support testing at many locations. The Kwajalein Mobile Range Safety System is an instrumentation suite integrated with a ship platform (the former USNS Worthy) and can support a wide variety of missile launches. In addition, we are funding the modification of two NP-3 aircraft to provide a more highly mobile range safety system. A project being funded under the DoD Central Test and Evaluation Investment Program, Transportable Range Augmentation and Control System, will provide a suite of instrumentation that can be used to augment the instrumentation at any range. We are also pursuing the capability of launching ballistic missile targets from an aircraft. That capability will allow us to present testing scenarios without having to rely solely on the ground launch target.

COUNTERMEASURES

QUESTION: General O'Neill, many of us here are concerned about potential countermeasures to theater and national missile defenses. Is your current program adequate to assess the various threat responses to our missile defenses?

ANSWER: The current NMD program fully addresses this specific threat issue. In assessing each threat from which we draw our requirements, we consider the stressing scenarios based on effectiveness and likelihood of countermeasures and reactive threats. Our design requirements are based on the most recent Threat Assessment Report (TAR), Concept of Operations (CONOPS) and Capstone Requirements Document (CRD). The Threat Assessment Report identifies in detail such issues as countermeasures and reactive threat responses.

QUESTION: General O'Neill, can you assure me that BMDO will reevaluate the use of STARS system as a countermeasure testbed or as a target launch system in support of our expanded theater and national missile defense programs? Please provide the committee with a document detailing the results of your assessment.

ANSWER: When our target requirements can be technically and cost effectively met by the STARS, we will not hesitate to pursue this alternative. The STARS system is not currently a prime target candidate for either NMD or TMD programs.

Our short- and long-range TMD target requirements call for multiple axis and multiple simultaneous engagements. We are currently pursuing air-launched targets to fulfill these requirements because of the flexibility, lower cost, and support to multiple ranges afforded by this type of target system. Additionally, we are seeking to minimize the launch infrastructure cost of our target and interceptor programs.

STARS as a TMD target system would require the build-up of launch infrastructure on Johnston Island for the STARS and new infrastructure on Rongeric Island (in Kwajalein Atoll) for the THAAD system.

For NMD, STARS does not provide a true strategic (ICBM class) target. The target mission for the NMD Exoatmospheric Kill Vehicle (EKV) is being provided by the Air Force Multi-Service Launch Vehicle (MSLS), a Minuteman II based system, with a typical ICBM trajectory from Vandenberg AFB, CA, to Kwajalein Missile Range.

TREATY COMPLIANCE IMPACTS

QUESTION: General, while it might be legal to develop, but not deploy, a national missile defense program which violates the ABM or START treaties, do you believe it is prudent use of U.S. taxpayers' funds?

ANSWER: The Secretary of Defense announced that the decision of whether to deploy a national missile defense system will be driven by the threat; thus our development efforts will focus on the threat. While complying with the Treaty during development, we will design an architecture responsive to the threat. As the Secretary of Defense said, the specific situation three years from now may require "technical adjustments" to the Treaty.

QUESTION: How do you plan to make any National Missile Defense System that can protect all fifty states treaty compliant?

ANSWER: A limited defense of all 50 states against a simple threat can be provided from our authorized ABM deployment site in North Dakota. Defense of sites farthest from North Dakota will depend on sensors that "see" the threat early enough to commit a very fast interceptor. We believe we may be able to use sensors deployed for non-ABM missions, such as space surveillance or early warning, to support the single-site ABM system. These matters must be resolved by ABM Treaty compliance authorities.

QUESTION: Can you defend Alaska and Hawaii from future sophisticated threats with a treaty compliant system?

ANSWER: The specific sophisticated threat of the future would have to be better defined. However, in the case of the current sophisticated Russian or China threat, a single-site treaty compliant system is not likely to protect all of Alaska or Hawaii. The objective, potentially Treaty compliant system is being designed to defend against a limited number of RVs based on an accidental, rogue nation, or unauthorized launch of limited proportion and sophistication. The design requirements include protection of Hawaii and Alaska in these limited scenarios.

QUESTION: General, are there ABM Treaty compliance issues which affect your ability to develop TMD systems?

ANSWER: Although the ABM Treaty does not specifically refer to theater missile defense (TMD), Article VI states that we cannot give non-ABM missiles, radars, or launchers the capability to counter strategic ballistic missiles and that we cannot test them in an ABM mode. Effective, modern TMD could have some theoretical capability against some strategic ballistic missiles, and the issue is how to square this with the Treaty.

No U.S. TMD system in development has failed to meet performance requirements because of ABM considerations.

With respect to the Theater High Altitude Area Defense (THAAD) system, an interagency legal evaluation in November 1993 indicated the performance of THAAD, as then designed and if provided with certain data from space-based sensors, raised compliance issues that would have to be resolved once it reached the field-testing phase. Development of the external cueing module in the THAAD software has thus been deferred during DEM/VAL. As yet, this deferral has had no impact on system capability or schedule. As THAAD proceeds, we expect to develop and incorporate the software necessary for external cueing and make a formal compliance decision by October 1996. Cueing has not raised similar problems for other U.S. TMD systems - Navy Theater Wide, for example, was determined not to have ABM capability even with cueing.

CRUISE MISSILE DEFENSE

QUESTION: General, when will BMDO have an acquisition program like a THAAD or Patriot designed from the ground up to counter stealthy cruise missiles?"

ANSWER: BMDO's focus is on the ballistic missile threat. BMDO is not currently developing a weapons system specifically designed from the bottom up for cruise missile defense, nor are there any plans to do so. BMDO is involved in cruise missile defense since many of our ongoing programs (Patriot, Standard Missile 2 Block IVA, MEADS) have capability against both a cruise and ballistic missile threat. Over the past several years, Service and Defense Science Board studies have identified that the primary challenge for stealth land attack cruise missile defense is not the weapon, but rather the surveillance, detection, tracking and associated BM/C3 to enable extended threat engagements. The complexity of this problem requires a combination of architectural and system engineering trade studies, and warfighter-led tactical simulation evaluations. Such efforts are underway by BMDO, the Services, the Joint Staff, and ARPA.

QUESTION: General, what can we do to neutralize the threat of cruise missiles to our interests in the Gulf?"

ANSWER: The modifications and improvements being funded by BMDO to provide ballistic missile defense capability to existing air defense systems will also improve the warfighter's ability to counter cruise missiles. BMDO's contributions include radar upgrades to Patriot (PAC-3), advanced missile/seeker designs for both PATRIOT and AEGIS Standard Missile 2 Block IVA, as well as the development of an information netting architecture which will facilitate the engagement of both cruise missiles and TBMs. Through its TMD efforts, BMDO will provide the warfighter with greater capability to detect, track and engage cruise missiles than is currently present.

NATIONAL MISSILE DEFENSE

QUESTION: General O'Neill, has a new threat emerged during the past year to warrant a change in the Defense Department's plans for national missile defense?

ANSWER: No new threat has emerged during the past year to warrant a change in the NMD. The change that occurred, from "technology readiness" to "deployment readiness," was driven by the increased funding for NMD provided by the Congress. The net effect of this change has been a realignment from an essentially open-ended NMD technology development activity to a very focused acquisition like program emphasizing system engineering, deployment planning and integration of the elements leading to an integrated system demonstration within three years.

DEFENSE OF THE PACIFIC

QUESTION: Does it appear that, in addition to China, any Pacific nation will possess a capability to threaten populated areas of the United States within the next ten years?

ANSWER: [Deleted.]

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

BMDO PERSONNEL

QUESTION: I am concerned about the number of personnel assigned to BMDO. Is it a correct assessment to say that these people are not conducting research, but rather monitoring the work and contracts of those doing research and development? If so, why do you have so many contractors monitoring contractors?

ANSWER: From the outset, the Strategic Defense Initiative Organization (SDIO) was charged with the management and oversight of the largest Research and Development (R&D) program within the Department of Defense(DoD). The administration placed a high priority on development and deployment of a Ballistic Missile Defense (BMD) system. To be responsive, SDIO had to rapidly procure technical talents from a variety of sources within the government and from private industry.

As technical programs grew, so too did the organization's management support requirements. In compliance with federal guidance for contractor cost effectiveness decisions, as specified in the FAR Subpart 7.3. Contractor Versus Government Performance, BMDO obtained many services through private sources. Using contract vehicles provided the most efficient and cost effective means of meeting rapidly expanding infrastructure requirements such as Access Control and Security, Graphics Support, Information Technology Support and Technical Library Maintenance. We have continued this philosophy today. Through maintaining contractual flexibility, we are operating a cost effective, requirements driven infrastructure.

In 1992, BMDO had 259 Federal employees. It was the largest R&D program in DoD. At that time, BMDO used contracts to procure Technical, Scientific, and Engineering Support to assist in the accomplishment of its mission. In the Conference Report accompanying the National Defense Authorization Act for FY 1993, the conferees expressed concerns centered on the ability of this limited number of employees to adequately direct the execution of the BMD program. The 1993 Authorization Act included Senator Pryor's Amendment that limited Scientific and Engineering Technical Analysis (SETA) support within BMDO. The Congress also directed the Secretary to ensure that BMDO had sufficient military and civilian personnel to accomplish its mission.

Since 1993, we have reduced contractor support within BMDO by about 1,075 work years. To partly offset the decreases in contractor support, BMDO increased its Federal workforce to 439 (Federal civilian and military personnel). Increased BMDO staffing has offset only about one in seven of the contractor reductions, approximating a 55 percent reduction in the workforce since FY92. Of those Federal employees added to the roles since 1992, the vast majority are involved in directing the execution of the program, including the oversight of technical contractors and our EAs.

BMDO serves two principal functions. The first function is the management oversight of all BMD program, totaling about $3.3 billion in FY96. The second function is the overall system integration of BMD systems in a joint program environment. The BMDO Federal employee staff is responsible for BM/C3, Integration and System Engineering, spanning all the elements and the services. Performance of these functions requires a higher degree of program management and technical expertise, for successful execution, than do those programs executed by the EAs. BMDO's requirements for technical specialization, as directed by the Federal staff, receive the thrust of our contractor support.

QUESTION: Regarding the increase in civilian personnel, provide a list by series and grade for the 300 civilians assigned to BMDO.

ANSWER: see attached chart

BALLISTIC MISSILE DEFENSE ORGANIZATION
CIVILIANS BY GRADE AND SERIES

SERIES	AUTHORIZED GRADE	QUANTITY
028	GS14	1
080	GS7/9/11	1
080	GS9/11/12	1
080	GS11/12	1

080	GS12/13	3
080	GS13	1
080	GS14	4
080	GS15	1
0854	GS14	1
1101	GS15	1
1102	GS5/7/9	4
1102	GS11/12	2
1102	GS12	3
1102	GS12/13	1
1102	GS13	10
1102	GS14	8
1102	GS15	5
1102	SES	1
1106	GS7	1
1106	GS8	1
130	GS13	1
130	GS15	2
1301	GS13	1
1301	GS15	12
1301	SES	8
1301	ST	1
1310	GS15	1
132	GS14	1
132	GS15	2
1515	GS13	1
1515	GS14	4
1515	GS15	9
170	GS15	1
2001	GS9	1
2005	GS6	1
2101	GS11	1
2102	GS8	1

301	GS9/11	2
301	GS9/11/12	1
301	GS11	5
301	GS12	3
301	GS13/14	1
301	GS15	2
301	SES	5
303	GS6/7	2
303	GS7	2
303	GS8	3
305	GS3/4/5	2
318	GS6/7	2
318	GS7	7
318	GS7/8	2
318	GS8	26
318	GS8/9	1
318	GS9	5
318	GS10	1
326	GS5	1
334	GS13	3
334	GS13/14	1
334	GS14	1
334	GS15	4
341	GS15	1
342	GS9/11	2
342	GS11	1
343	GS7/9/11	1
343	GS9/11	2
343	GS9/11/12	1
343	GS11/12/13	1
343	GS12	2
343	GS12/13	2
343	GS13	8
343	GS13/14	4
343	GS14	12
343	GS15	9
343	SES	1

346	GS14	2
346	GS15	1
391	GS14	1
501	GS15	1
511	GS15	2
560	GS9/11	1
560	GS11	2
560	GS12	1
560	GS12/13	1
560	GS13	3
560	GS14	5
560	GS15	1
561	GS7	1
561	GS7/8	1
801	GS7/9/11/12	1
801	GS12	1
801	GS12/13	1
801	GS13	5
801	GS13/14	11
801	GS14	6
801	GS14/15	1
801	GS15	7
810	GS14	1
855	GS13	1
855	GS13/14	1
855	GS15	2
861	GS13	1
861	GS14	3
896	GS14	1
896	GS15	1
905	GS13/14	1
905	GS15	3
905	SES	1
		TOTAL: 300

QUESTION: What sort of work/function do the 600 contractor personnel perform? Please break out by general category.

ANSWER: The following general categories and percentages of the total describe the work/function performed by contractor personnel:

Category: Studies, analysis and evaluations

Percentage of total: 35%

Description: Services to understand and/or evaluate issues, improve policy development, decision making, management or administration.

Category: Management and professional support services

Percentage of total: 59%

Description: Services to provide engineering or technical support, assistance, advice, or training for management and operation of DoD organizations, activities, or systems which are related to the basic responsibilities and mission of the organization.

Category: Administrative support services

Percentage of total: 7%

Description: Routine administrative support services such as graphics, reproduction, maintenance services, physical security services, etc.

PATRIOT

QUESTION: What was the success rate of the PATRIOT system in the Gulf War? What do you believe the success rate would have been if we had PAC-2? PAC-3?

ANSWER: During Desert Storm, the PATRIOT units located in theater had received both PATRIOT ATM Capability 1 (PAC-1) and PAC-2 system modifications. The Army has previously stated that the success rate for the PATRIOT PAC-2 system was about 70% in Saudi Arabia and about 40% in Israel.

PAC-1 consisted entirely of software modifications to the system's surveillance, track, guidance, battle management, and Command, Control and Communications functions to accommodate the differences between ballistic missiles and air-breathing targets. With PAC-1, PATRIOT units had the ability to provide point defense against very short-range, low-velocity TBMs such as the Soviet FROG and SS-21. PAC-1 did not provide an area defense capability against longer range, higher velocity TBMs such as the Scud, nor did it have the ability to reliability detonate the TBM warhead. Therefore, the PAC-2 developmental program was begun.

PAC-2 consisted of hardware modifications to the PATRIOT missile fuze and warhead to enhance lethality against the Scud, while retaining its inherent capability against air-breathing targets. PAC-2 also provided further modifications to the PATRIOT system software (identified as Post Deployment Build 3 software) that allowed the system to take advantage of the higher lethality that the PAC-2 missiles provided. Additionally, the previous point defense ATBM capability was expanded to a limited area defense against a wider spectrum of TBM threats. Delivery of the first PAC-2 missile and the new PDB-3 software was scheduled for January of 1991. The first production deliveries of PAC-2 missiles along with PDB-3 software were shipped in September 1990. The software delivery and missile delivery represented a five-month and four-month delivery acceleration, respectively.

PATRIOT ADVANCED CAPABILITY - 3 (PAC-3) consists of a series of phased improvements to the PATRIOT system called configurations. The performance requirements of the system with these configurations applied is greater than the capability of the enemy TBMs used in Desert Storm. The PAC-3 system is on track to meet all of the system performance requirements as laid out in the users Operational Requirements Document. The PAC-3 system when deployed is expected to fully counter the level of threat observed during Desert Storm.

QUESTION: In your prepared statement you said,"Neither PAC-3 nor the Navy Area Defense involves show-stopping technical challenges at this point. Rather, they involve engineering challenges." Can you elaborate on that?

ANSWER: In an effort to ensure that the PAC-3 system's increased warfighting capability is provided to the warfighter in FY99, we have developed an aggressive acquisition strategy for this program. The program's acquisition strategy includes a testing program which includes subsystem, component, missile and system level testing to ensure that the system meets or exceeds the operational requirements of the user. Consequently, this aggressive schedule increases the engineering challenges associated with the different types of testing (for example: component integration testing, flight testing, etc.). However, we believe that we have mitigated the risk associated with this schedule to an acceptable level and will achieve the user's fielding date of FY99.

The underlying technology being applied to the Navy Area program has been incorporated into previous systems. The technology inherent to the AN/SPY-1 radar, as well as the remainder of the AEGIS Weapon System, has been used to support all weapons aboard the ARLEIGH BURKE-class Guided Missile Destroyers. The Standard Missile-2 Block IVA (SM-2 Blk IVA) interceptor which will be used in the Navy Area Theater Missile Defense (TMD) Defense System, uses the technology employed in the already developed SM-2 Blk IV and incorporates an Infra-Red (IR) seeker and upgrades to the fuse and warhead. An IR seeker was previously integrated to the Standard Missile in the SM-2 Blk IIIB missile. All these technologies have been tested separately as part of various preceding weapons systems. The Navy Area Defense System will incorporate these technologies as the basis for a lower tier interceptor system to defend against Theater Ballistic Missile attack.

NAVY THEATER WIDE

QUESTION: You say that the Navy Theater Wide System is the least mature of all our systems, but I thought the AEGIS system is an excellent base to develop a BMD defense. Is the AEGIS system currently onboard AEGIS equipped ships capable of tracking the Chinese missiles being fired in their current exercise?

ANSWER: The AEGIS system does provide an excellent base for incorporation of BMD capability, however, some platform upgrades are needed. The current AEGIS configuration is capable of tracking the second stage activities of most of the identified threats. Consistent tracking of the re-entry vehicles will require some modifications to the existing AEGIS systems. The Navy Theater Wide program will require a substantial upgrade to the signal processor to allow for exoatmospheric identification of re-entry vehicles to support the ascent intercept mission. The LEAP interceptor results from earlier advanced developments to demonstrate miniaturization of kill vehicle technologies. Substantial engineering is required to design and develop a more robust kill vehicle suitable for meeting Navy requirements that incorporates LEAP technology advances.

MEADS

QUESTION: The MEADS program involves sharing our BMD technology with other countries. What safeguards are in place to ensure that this technology is not sold to other countries?

ANSWER: Technology transfers from the U.S. to MEADS partners will be dealt with through existing mechanisms including export licenses and technical assistance agreements. The use of U.S. technology and retransfer of such technology to third parties is strictly controlled through the use of these agreements as well as the memorandum of understanding among the partners for the MEADS program. Additionally, the U.S. has overarching General Security of Information Agreements with Industrial Security Annexes with the partner nations that also serve to protect U.S.-provided technology.

PAC-3 AND THAAD

QUESTION: Is PAC-3 or THAAD designed to be C-17 transportable?

ANSWER: The PATRIOT PAC-3 system is transportable on the C-17 as well as the C5A. Due to out-sized and ground pressure requirements associated with the C-141, only selected components of the PATRIOT system can be transported on the C-141.

THAAD is designed to be transportable by C-141 or larger aircraft, to include the C-17. Additionally, although not a design requirement, most THAAD components will be C-130 transportable providing additional airlift flexibility for force deployment contingencies.

NATIONAL MISSILE DEFENSE

QUESTION: You estimate that it will cost $5 billion to deploy NMD. Does that figure include using Minuteman boosters and facilities? If so, what would be the cost if you are unable to use the existing Minuteman infrastructure?

ANSWER: The $5 billion needed to deploy NMD includes the cost of the necessary booster and either upgraded or new facilities as necessary at an existing site. The cost difference between upgrading existing Minuteman facilities and the facilities necessary for a new development booster is negligible. The $5 billion cost does not include the acquisition of new land if it is necessary because of the location eventually selected for the NMD site.

BMD FYDP

QUESTION: How much is the FYDP for BMD? List subtotal by FY per Appropriation, Program Element, similar to the one provided with the prepared statement.

ANSWER: See attached chart

FY96-01 BMDO Program Summary by PE
TY$M
Based on FY96/97 President's Budget Submit

	97	98	99	00	01
PROCUREMENT					
THAAD					117.499
HAWK	19.379				
TMD BM/C3	19.256	20.186	25.981		
PAC-3	215.378	361.428	372.995	461.243	448.208
Navy Area	9.160	15.481	44.578	130.167	161.052
Subtotal	263.173	397.095	443.554	591.410	726.759
RDT&E					
Support Tech/Applied Research	94.023	86.459	86.702	76.725	68.154
Support Tech/Adv Tech Dev	132.319	157.629	150.345	154.187	162.640
THAAD DEM/VAL	269.000				
HAWK DEM/VAL					
TMD BM/C3 DEM/VAL					
Navy Area DEM/VAL	60.000				
Navy Theatre Wide DEM/VAL	58.171	96.226	143.295	142.212	164.664
CORPS SAM/MEADS DEM/VAL	56.232	48.113	9.553		
BPI DEM/VAL					
NMD	508.437	511.495	413.061	316.832	316.987
Joint TMD	520.111	557.046	515.855	551.458	555.062
THAAD EMD	212.798	481.513	534.820	531.083	498.309
TMD BMC/3 EMD					
PAC-3 EMD	381.509	195.337	101.262		
PAC-3 Risk EMD					

FY96-01 BMDO Program Summary by PE
TY$M
Based on FY96/97 President's Budget Submit

	97	98	99	00	01
Navy Lower Tier EMD	241.582	268.470	226.119	217.678	158.548
Management					
Subtotal	2,534.182	2,402.288	2,181.012	1,990.175	1,924.364
MILCON					
NMD Technology					
Joint TMD	1.404	1.965	1.893	1.453	0.343
THAAD		4.583			
Subtotal	1.404	6.548	1.893	1.453	0.343
BMDO TOTAL	2,798.759	2,805.931	2,626.459	2,583.038	2,651.466

BMDO BUDGET

QUESTION: Please provide a breakout of your budget by Fiscal Year by Program Element (appropriation not required) of your budget prior to and after the program review. Subtotal net change.

ANSWER: See attached chart

FY96-01 Program Summary by PE
FY96 PB vs. FY97 PB
$M

			97	98	99	00	01
Procurement							
THAAD	0208861C	97BES	0.000	0.000	615.043	726.843	706.080
THAAD	0208861C	97PB	0.000	0.000	0.000	0.000	117.499
			0.000	0.000	(615.043)	(726.843)	(588.581)
HAWK	0208863C	97BES	20.430	0.000	0.000	0.000	0.000
HAWK	0208863C	97PB	19.379	0.000	0.000	0.000	0.000
			(1.051)	0.000	0.000	0.000	0.000
TMD BM/C3	0208864C	97BES	20.300	50.931	0.000	0.000	0.000
TMD BM/C3	0208864C	97PB	19.256	20.186	25.981	0.000	0.000
			(1.044)	(30.745)	25.981	0.000	0.000
PAC-3	0208865C	97BES	312.500	414.000	424.000	554.000	313.780
PAC-3	0208865C	97PB	215.378	361.428	372.995	461.243	448.208
			(97.122)	(52.572)	(51.005)	(92.757)	134.428
Navy Area	0208867C	97BES	25.100	38.700	69.200	152.500	191.000
Navy Area	0208867C	97PB	9.160	15.481	44.578	130.167	161.052
			(15.940)	(23.219)	(24.622)	(22.333)	(29.948)
Subtotal Procurement		97BES	378.330	503.631	1,108.243	1,433.343	1,210.860
Subtotal Procuremant		97PB	263.173	397.095	443.554	591.410	726.759
			(115.157)	(106.536)	(664.689)	(841.933)	(484.101)

FY96-01 Program Summary by PE
FY96 PB vs. FY97 PB
$M

			97	98	99	00	01
RDT&E							
Support Tech/Applied Research	0602173C	97BES	103.069	103.381	95.759	89.194	88.914
Support Tech/Applied Research	0602173C	97PB	94.023	86.459	86.702	76.725	68.154
			(9.046)	(16.922)	(9.057)	(12.469)	(20.760)
Support Tech/Adv Tech Dev	0603173C	97BES	93.514	92.501	92.535	156.323	156.323
Support Tech/Adv Tech Dev	0603173C	97PB	132.319	157.629	150.345	154.187	162.640
			38.805	65.128	57.810	(2.136)	6.317
THAAD DEM/VAL	0603861C	97BES	172.068	0.000	0.000	0.000	0.000
THAAD DEM/VAL	0603861C	97PB	269.000	0.000	0.000	0.000	0.000
			96.932	0.000	0.000	0.000	0.000
HAWK DEM/VAL	0603863C	97BES	0.000	0.000	0.000	0.000	0.000
HAWK DEM/VAL	0603863C	97PB	0.000	0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000	0.000
TMD BM/C3 DEM/VAL	0603864C	97BES	35.401	40.714	41.612	51.394	51.592
TMD BM/C3 DEM/VAL	0603864C	97PB	0.000	0.000	0.000	0.000	0.000
			(35.401)	(40.714)	(41.612)	(51.394)	(51.592)
Navy Area DEM/VAL	0603867C	97BES	0.000	0.000	0.000	0.000	0.000
Navy Area DEM/VAL	0603867C	97PB	60.000	0.000	0.000	0.000	0.000
			60.000	0.000	0.000	0.000	0.000
Navy Theatre Wide DEM/VAL	0603868C	97BES	30.900	0.000	0.000	0.000	0.000
Navy Theatre Wide DEM/VAL	0603868C	97PB	58.171	96.226	143.295	142.212	164.664
			27.271	96.226	143.295	142.212	164.664
Corps SAM DEM/VAL	0603869C	97BES	47.400	0.000	0.000	0.000	0.000
Corps SAM DEM/VAL	0603869C	97PB	56.232	48.113	9.553	0.000	0.000
			8.832	48.113	9.553	0.000	0.000
BPI DEM/VAL	0603870C	97BES	25.000	0.000	0.000	0.000	0.000
BPI DEM/VAL	0603870C	97PB	0.000	0.000	0.000	0.000	0.000
			(25.000)	0.000	0.000	0.000	0.000
NMD	0603871C	97BES	400.000	400.000	400.000	404.725	404.725
NMD	0603871C	97PB	508.437	511.495	413.061	316.832	316.987
			108.437	111.495	13.061	(87.893)	(87.738)
Joint TMD	0603872C	97BES	414.608	616.113	594.927	728.816	1,004.233
Joint TMD	0603872C	97PB	520.111	557.046	515.855	551.458	555.062
			105.503	(59.067)	(79.072)	(177.358)	(449.171)
THAAD EMD	0604861C	97BES	566.322	901.000	661.146	285.670	145.989
THAAD EMD	0604861C	97PB	212.798	481.513	534.820	531.083	498.309
			(353.524)	(419.487)	(126.326)	245.413	352.320
TMD BMC/3 EMD	0604864C	97BES	0.000	0.000	0.000	0.000	0.000
TMD BMC/3 EMD	0604864C	97PB	0.000	0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000	0.000
PAC-3 EMD	0604865C	97BES	257.000	137.000	0.000	0.000	0.000
PAC-3 EMD	0604865C	97PB	381.509	195.337	101.262	0.000	0.000
			124.509	58.337	101.262	0.000	0.000

FY98-01 Program Summary by PE
FY96 PB vs. FY97 PB
$M

			97	98	99	00	01
PAC-3 Risk EMD	0604866C	97BES	0.000	0.000	0.000	0.000	0.000
PAC-3 Risk EMD	0604866C	97PB	0.000	0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000	0.000
Navy Area EMD	0604867C	97BES	279.200	244.900	224.500	181.000	73.200
Navy Lower Tier EMD	0604867C	97PB	241.582	268.470	226.119	217.678	158.548
			(37.618)	23.570	1.619	36.678	85.348
Management	0605218C	97BES	173.940	188.867	191.862	188.440	193.942
** Management	0605218C	97PB	0.000	0.000	0.000	0.000	0.000
			(173.940)	(188.867)	(191.862)	(188.440)	(193.942)
Subtotal RDT&E		97BES	2,598.422	2,724.476	2,302.341	2,085.562	2,118.918
Subtotal RDT&E		97PB	2,534.182	2,402.288	2,181.012	1,990.175	1,924.364
			(64.240)	(322.188)	(121.329)	(95.387)	(194.554)
MILCON							
NMD Technology	0603871C	97BES	0.000	0.000	0.000	0.000	0.000
NMD Technology	0603871C	97PB	0.000	0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000	0.000
Joint TMD	0603872C	97BES	2.961	1.993	2.089	1.642	1.642
Joint TMD	0603872C	97PB	1.404	1.965	1.893	1.453	0.343
			(1.557)	(0.028)	(0.196)	(0.189)	(1.299)
THAAD	0604861C	97BES	4.587	0.000	2.627	0.753	16.280
THAAD	0604861C	97PB	0.000	4.583	0.000	0.000	0.000
			(4.587)	4.583	(2.627)	(0.753)	(16.280)
Subtotal MILCON		97BES	7.548	1.993	4.716	2.395	17.922
Subtotal MILCON		97PB	1.404	6.548	1.893	1.453	0.343
			(6.144)	4.555	(2.823)	(0.942)	(17.579)
Total BMDO		97BES	2,984.300	3,230.100	3,415.300	3,521.300	3,347.700
Total BMDO		97PB	2,798.759	2,805.931	2,626.459	2,583.038	2,651.466
			(185.541)	(424.169)	(788.841)	(938.262)	(696.234)

* The FY97-01 RDT&E funding in the TMD BM/C3 PE was moved to the 0603872C PE per the 96 Authorization Bill report lang

** The FY97-01 Management Funding was moved to the benefiting missions per the 98 Authorization bill report language.

STANDARD MISSILE

QUESTION: General, you stated that it would take rewriting 1,000 lines of code and a new missile to shoot down the SCUD that hit Dhahran. Is that missile the Standard Missile 2, Block IV?

ANSWER: The SM-2 Block IV and the AEGIS Weapon System would require significant upgrades, such as improved missile fuzing and radar modifications to track this faster target, to permit the interception of a SCUD missile. The Navy Area Defense System will incorporate these modifications, as well as significantly improving the Standard Missile through the addition of an Infra-Red seeker. An AEGIS weapon system software revision and the modified SM-2 Block IVA missile may be able to engage the full range of Theater Ballistic

Missile threats, in addition to the SCUD missile, given that the TBM is targeted at a point within the defended area.

MEADS

QUESTION: The table included with the prepared statement included funds for "Corps SAM-Dem/Val" but no funds for MEADS. Are the MEADS funds included with Corps SAM or are they listed elsewhere?

ANSWER: The MEADS funds are included in the CORPS SAM - DEM/VAL PE0603869C.

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

THEATER MISSILE DEFENSE

QUESTION: How effective can a ground-based theater missile defense system be against an enemy ballistic missile that employs "early release submunitions?" In your opinion, how likely is it that adversaries will try to make our TMD systems ineffective by investing in early release submunitions as a countermeasure?

ANSWER: [Deleted.]

AIRBORNE LASER

QUESTION: The Air Force is promoting its Airborne Laser as the best system for coping with early release submunitions. Do you agree? Is there any reason development of the Airborne Laser should not be under BMDO?

ANSWER: Over the past 3-4 years BMDO and DoD have undertaken at least 3 different studies on how to best deal with advanced submunitions by evaluating different boost phase intercept concepts. The key to interpreting the results of these studies lies in ensuring that comparisons are done on an apples to apples basis. When this is done, the results of these studies have been quite similar: Space Based Laser (SBL) is the best performer but costs the most (but has NMD and other important ancillary capabilities); small kinetic energy (KE) rockets fired against boosting hostile missiles from short range (over-flying enemy territory) by either a dedicated fighter aircraft or a UAV has acceptable performance (but has some major drawbacks, such as non-availability at the beginning of the war) but is less expensive than SBL; finally, the Airborne Laser (ABL) used in a stand-off mode (90 Km from the front lines) has some performance shortfalls ("safe-haven" firing zones) and limited range against various types of threat missiles (especially in some weather conditions) and a cost between SBL and UAV/KE.

In 1992 BMDO transferred the ABL program to the Air Force (with $450 million over the FYDP) because we felt that the ABL would mature in the timeframe designated by Congress for transfer to a Service (at the same time, we transferred the free electron laser to the Army).

If the ABL were transferred to BMDO, it would represent a major resource impact to the BMDO budget and if the funds for ABL were removed from the Air Force, it could cause a loss of Service confidence in the program's future.

NATIONAL MISSILE DEFENSE

QUESTION: On Page 15 of your testimony you say the Department has $2.8 billion through 2001 to develop a National Missile Defense system, and that it would cost about $5 billion more for "deployment of an initial system." It could cope with a "first generation rogue ballistic missile threat." Would the system be ABM Treaty compliant?

ANSWER: The NMD system development effort will comply with the ABM Treaty. The system is being designed to provide protection for all fifty states from a single interceptor site located at Grand Forks, North Dakota. The current architecture consists of (1) the early warning systems, Space Based Infrared System (SBIRS), Geosynchronous Earth Orbit (GEO) satellites, Upgraded Early Warning Radars (UEWRs) and other adjunct sensors, (2) a Ground Based Interceptor (GBI) located at Grand Forks, (3) a Ground Based Radar (GBR) located at Grand Forks, (4) a Space and Missile Tracking System (SMTS) precommit sensor, and (5) the Battle Management/Command, Control, Communications (BM/C3). The final NMD Architecture will be reviewed by the Defense Compliance Review Group to determine final compliance with the ABM Treaty.

QUESTION: Please describe the system that $7.8 billion investment would buy us. How many interceptors and radars would that buy? Where would they be deployed? How effective (in terms of probability of kill against a certain number of warheads, with and without penetration aids) would that system be against an attack on the US heartland? How effective would it be against an attack on targets along our east or west coasts?

ANSWER: The system would consist of several elements: the Ground Based Radar (GBR), an X-band phased array ABM radar, the Ground Based Interceptor (GBI), Upgraded Early Warning Radars (UEWRs), forward deployed X-band radars, and the Battle Management/Command Control and Communications (BM/C3). Approximately 20 interceptors would be deployed at Grand Forks, North Dakota, along with the X-band phased array radar. The UEWRs utilize existing PAVE PAWS and BMEWS sites. Forward deployed X-band radars, located on U.S. soil near the threat launch location and primarily used for intelligence gathering, could be utilized to track and discriminate the incoming threat.

At this early stage of development we have not yet fully completed a rigorous cost estimate for the 3+3 program. However, we expect it would cost about $10 billion--$2.5 billion to develop, and an additional $7.5 billion to produce and deploy an initial system which would include 100 interceptors.

This system would be highly effective against a limited threat for all 50 states, excluding the most complex threats. Certain penetration aids of these complex threats will require the utilization of the Space and Missile Tracking System (SMTS), which is not included in the $10 billion deployed system but separately funded by the Air Force. For these complex threats, system performance along the United States coastal regions is degraded beyond the X-band phased array radar (GBR) coverage area. The addition of SMTS will restore this degradation in system performance.

QUESTION: How effective (in terms of probability of kill against a certain number of warheads, with and without penetration aids) would that system be against an attack on the United States heartland? How effective would it be against an attack on targets along our east or west coasts?

ANSWER: This system would be highly effective against limited threat for all fifty states, excluding the most complex threats. Certain penetration aids of these complex threats will require the utilization of the Space and Missile Tracking System (SMTS), which is not included in the $7.8 billion deployed system. For these complex threats, system performance along the United States coastal regions is degraded beyond the X-band phased array radar (GBR) coverage area. The addition of SMTS will restore this degradation in system performance.

QUESTION: How effective would such a system be against an accidental launch of SLBMs from near our coasts?

ANSWER: This system would not be as effective due to the short flight timelines associated with this threat.

QUESTION: In general, what is a "first generation rogue ballistic missile threat?" How does that differ from a second generation threat?

ANSWER: First generation describes ballistic missile threats utilizing 1960s technology. These threats are normally characterized by a single reentry vehicle (a single warhead), no significant penetration aids, and are more easily tracked and detected than their more sophisticated successors. They are larger, warmer, and fly a predictable ballistic trajectory with stable reentries without tumbling. This condition allows for higher confidence in determining an intercept point. A rogue threat implies a non-coordinated, strategically limited attack, meaning a minimal launch (low single digits) with no related attacks carried out in the same time frame. A Taepo Dong 2 capable of being launched from North Korea or other Taepo Dong 2-equipped nations and aimed at Hawaii or the Aleutians would likely fit this profile. These first generation ballistic missile threats are the emerging threat from Third World indigenous development. Second generation threats generally would emerge from China or Russia and could include simple and complex penaids, multiple Reentry Vehicles, complex trajectories, increased range and accuracy.

SUBCOMMITTEE RECESS

Senator STEVENS. If there is nothing further, the subcommittee will stand in recess subject to the call of the Chair.

[Whereupon, at 12:10 p.m., Wednesday, March 20, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, MARCH 27, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Bond, Shelby, Inouye, Hollings, Leahy, and Bumpers.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

OFFICE OF THE SECRETARY

STATEMENT OF HON. JOHN H. DALTON, SECRETARY OF THE NAVY

ACCOMPANIED BY:

ADM. J.M. BOORDA, CHIEF OF NAVAL OPERATIONS

GEN. CHARLES C. KRULAK, COMMANDANT, U.S. MARINE CORPS

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning. There is a vote scheduled for 10:30. I think we will be over there for two votes, so we are going to have to interrupt this hearing. I am going to make my opening statement quite short.

We do appreciate the demands that are placed upon you who are in charge of the Navy and the Marine Corps. We have seen our naval force called upon once again in connection with the problems off Taiwan. And certainly, this current situation demonstrates the need for a worldwide naval capability for the United States and for the readiness of the Marine Corps.

I want you to know that in many ways, Admiral Boorda, I wish that people here could hear the remarks that you made in Alaska just recently. They were very important to us, and I think they pertain to some matters that at times we lose sight of here in Washington, particularly the personal aspects of service and the requirements of all of us who have something to do with maintaining our armed services to remember always the men and women that serve in the Navy, as well as the other services.

So we thank you for being here, and I yield to my friend, the vice chairman.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much. Mr. Secretary, Admiral Boorda, and General Krulak, I join my chairman in welcoming you.

I would like to just point out a few things. This year, the Navy will reduce its battle force ships to 347, which is about one-half of what we once projected for the Navy. Civilian personnel has been reduced by 35 percent. Navy military personnel by one-third; marines by about 11 percent from the cold war levels, and at the same time we are calling upon our Navy, our fleet, our Marine forces, to keep an eye on Bosnia, on China, on the Spratley Islands, on the Malacca Straits, Persian Gulf, you name them.

I continually ask myself if this posture can be sustained with these smaller forces. I am concerned, as I am certain all of you are, with the impact on our men and women in uniform. I am certain you are doing all you can to make sure that we are taking adequate care of their needs. All I can say is what you are doing is tantamount to a miracle with what little you have and what we demand of you.

So thank you very much.

Senator STEVENS. Thank you. Mr. Secretary, Admiral, General, we are going to leave you uninterrupted for at least 35 minutes, and after that we will come back and have questions. So if you will just decide how to share the time, we will put your full statements in the record as if you had delivered them in the committee. But make such remarks as you see fit.

OPENING REMARKS OF SECRETARY DALTON

Mr. DALTON. Mr. Chairman, thank you very much.

Senator Inouye, it is a privilege to be back before this committee for the third year to report on the state of the Navy and Marine Corps.

I must tell you that I am very proud to serve as Secretary of the Navy. I am honored. Part of what makes my position so rewarding, is that I have the privilege to work with the finest Navy and Marine Corps team this country has ever had. America's naval services are focused and efficient. We are operating forward to protect America's interests around the world. Our forces are second to none, and I intend to keep it that way.

Since I have been Secretary I have focused on four themes with a vision for the future. Those themes are readiness, technology, efficiency, and, most important, our people. The first theme I will discuss is readiness in the Department of the Navy.

READINESS

When I had my confirmation hearing in July 1993, Senators, your colleagues on the Armed Services Committee were most concerned about readiness. Several Senators asked me about the readiness in the Navy and Marine Corps, and some expressed deep concern that our Navy Department was not as ready as it should have been. Readiness may have been a concern 3 years ago, and I certainly keep my sights on readiness today, but I believe we have addressed the issue effectively. I am confident that America is now getting a solid return on its investment in the Navy and Marine Corps.

Here are some examples to emphasize that we are indeed ready. Early last summer when Saddam Hussein moved some of his forces toward Kuwait, the Navy/Marine Corps team was right there. Within hours we had strike aircraft flying sorties. We were ready, we responded, and we got the job done.

A more recent indicator of our readiness is Bosnia. The rescue of Capt. Scott O'Grady is a prime example. The marine and naval forces were there on the scene when we needed them, and they got the job done.

Later that summer, American military leadership brought the warring factions to the peace table with precision delivery of air and surface launched weapons. The *Theodore Roosevelt* and *America* battlegroups conducted air and Tomahawk strikes last September. They made the difference.

Perhaps the most telling example is the recent operation in the vicinity of the Taiwan Straits. President Clinton and Secretary Perry made the call for a United States military presence in support of Taiwan in the face of Chinese political pressure, and aggressive military maneuvers. Literally before the day was over the Navy had one aircraft carrier battlegroup within range of the Taiwanese coast, and had completed preparations to divert a second carrier battlegroup and marine amphibious ready group.

This is what you get when you fund the Navy and Marine Corps. These forces are forward-deployed and ready, and that is all part of our sticker price.

It is my job to ensure that the men and women of the Navy and Marine Corps operating forward off the coast of China, in the gulf, or in Bosnia are properly trained and ready to fight, because that is what we are in the business of doing, to fight and win our Nation's wars, and with our forward presence, to prevent them. The bottom line is that the Navy Department's readiness is where it should be.

TECHNOLOGY

My second theme for the Navy Department is technology. Technology is not the end goal in and of itself. But it is the single biggest input to our departmentwide priorities of innovation and modernization. Our posture statement and statutory report talk more about this, and I do commend this posture statement to you. I know that you and your staffs are very busy, but I think this posture statement will give you a good picture of where the Navy/Marine Corps team is today and where we are going.

Let me give you two examples of successful investments in emerging technologies. First, 5 years ago in the gulf war the world watched as our battleships, cruisers, destroyers, and submarines launched highly accurate Tomahawk cruise missiles against enemy positions in Iraq. Tomahawk's performance exceeded all expectations in its first operational use, with an overall success rate approaching 60 percent.

We were not satisfied with Tomahawk's success, and the Department had a vision for a better missile. The improved Tomahawk cruise missiles launched last summer into Bosnia had a better than

90 percent success rate. We took a great product, and made it even better. That is the Navy Department standard of business, and it is exactly the kind of innovation and vision we must continue to emphasize in order to prepare the Navy and the Marine Corps for the challenges 20 and 30 years from now.

A second successful investment in emerging technologies is our cooperative engagement capability, or CEC. Beginning with highly successful live firing tests in the summer of 1994, and continuing through a series of challenging demonstrations and exercises in the last year, CEC continues to exceed our most optimistic expectations.

Most recently, CEC was a key element in an advanced concept technology demonstration better known as Mountain Top which took place in Hawaii last month. In Mountain Top, the Navy proved that it could conduct surface-to-air engagements of cruise missiles while those threats are still located far beyond the ship's own radar horizon. The true significance of Mountain Top is that our surface combatants will have the capability to provide effective air defense of forces ashore, debarkation ports, and airfields against low-flying Tomahawk-like cruise missiles. Secretary Perry has declared CEC the most significant technological development since stealth. That is a meaningful comment coming from a man that many consider to be the father of stealth technology.

Looking to the future, we have some important aircraft and ship programs in the works that indicate our commitment to the technology necessary to win the next war. One is the next generation of aircraft carriers, the CVX. I emphasize that X because I do not know yet what that carrier will look like. We are spending the time, money, and creativity on research and development to ensure that we have the best aircraft carrier for the future.

And there are more programs all across the board of sea, air, land, and special forces requirements, such as the Marine Corps V–22 Osprey, an aircraft program that we truly need, and one that we have worked hard with you to support; the marine advanced amphibious assault vehicle; the Arleigh Burke DDG's; the LPD–17 program; initial concept planning for the arsenal ship, and the surface combatant for the 21st century; and, of course, Seawolf, the new attack submarine, commitments to submarine warfare that will ensure that the U.S. Navy remains ahead of our potential adversaries.

The Department has worked very closely with this committee over the last couple of years to ensure that our submarines remain the best in the business. We appreciate your support. The Navy has gotten the answers required to keep these vital undersea warfare programs on track.

The programs I have mentioned are part of the force package we will need for the challenges of the year 2015 and beyond. It is important that we invest in science and technology, that we invest in research and development to ensure that we have the right Navy and Marine Corps, not just for today and tomorrow, but for the Navy and Marine Corps after next.

EFFICIENCY

My third theme is efficiency. The Department is taking a hard look at what decisions we must make now, particularly in modernization and capital investment, to ensure the Navy and Marine Corps are prepared for the future. My written testimony covers this area in detail. But let me cite one area where our vision for the future rests in changing the way things used to be done. That is acquisition reform.

The Navy and Marine Corps are learning to develop, build, and buy systems according to the most successful industry models. Late last fall I hosted the first annual Department of the Navy Chief Executive Officer Conference, where our acquisition leadership met with leading defense industry executives to map out our relationship for the future. We are breaking new ground in acquisition reform, and becoming more innovative and productive in the process.

The first major acquisition reform success story is the FA–18E/F Super Hornet. It is a program where we have used a modern business approach to develop an aircraft that is on time, on budget, and underweight. And I am particularly pleased to note that earlier this month Dr. Paul Kaminski recognized the Navy Department with the first ever acquisition excellence award for the success of this project.

I am also pleased about the cost-effective way we are approaching the joint strike fighter to meet the needs of the Navy, Marine Corps, and Air Force in the year 2008 and beyond. By combining forces and funding this project together, 80 percent of the avionics, electronics, and technology will be common. We will end up with an airframe unique to each service, but one that can be produced for roughly $10 billion less than if each service approached the buy on its own.

USMC MOVE TO PENTAGON

One final initiative I would like to mention is that I have brought the leadership of the Marine Corps into the Pentagon. For the first time in history, the Commandant of the Marine Corps, his assistant and his leading staff operate in the Pentagon. General Krulak's office is right next to mine, just as it is Adm. Mike Boorda's. We will be a more cohesive team, and work in a more cost-effective manner, as well.

These examples should tell you that there has, in fact, been a major shift in the way we conduct business. We are more efficient, more innovative, and more productive.

PEOPLE

Let me conclude my testimony by addressing the fourth theme, and my No. 1 priority, our people. We simply have the best people serving in the Navy and the Marine Corps that we have ever had. I served on active duty in the 1960's, and in the Reserves in the early 1970's. We had good sailors and marines then. But in many ways, today they are so much better. They are better educated, higher quality people, with a tremendous interest in community service.

Our primary personnel challenge is retaining these high quality men and women, and recruiting the sailors and marines that will follow. Let me address both of these points. First, recruiting. We continue to face one of the toughest recruiting environments in the history of the All-Volunteer Force. The market of recruitable 17- to 21-year-olds is one of the smallest and the propensity to enlist, although improving, is low. The Department has focused on the issue, and in 1995 we met the challenge. Last year, we recruited nearly 60,000 sailors and 40,000 marines. This year, and the next, and the next after that, we will continue to need to recruit approximately 100,000 young men and women in order to remain at peak readiness.

Diversity continues to be an important objective of our Navy and Marine Corps, and the Department is making a greater effort to recruit women and minorities; 97 percent of all Navy career field and all Marine Corps units except infantry regiments and artillery and some separate ground combat battalions are now open to women. That is a significant change from just a few years ago, and it signals a greater opportunity for career advancement across the board. The bottom line is we will continue to recruit the very best men and women for our services.

Second, the Department will continue every effort to retain the top quality personnel we now have on board. And, enhancing quality of life, including compensation and services, is crucial to our efforts. As could be imagined, competitive pay and benefits are of great concern to our sailors and marines. Housing allowances, including BAQ and VHA rates and the selective reenlistment bonus are important elements of our quality of life program and our effective retention tools.

Mr. Chairman, I could talk more about our quality of life needs, but we can address those in the questions, if you would like. But I would just like to close by saying indeed there has been a culture change and indeed a turning of the page of our Navy and Marine Corps in the last few years as we have addressed the issue of being a more diversified service and having women aboard combatants, and we have approached those challenges with professionalism, extraordinary integrity, character, discipline and with an emphasis on our core values of honor, courage, and commitment. That is part of our naval heritage, and will continue to be.

Let me just close my statement by emphasizing that the Navy Department is indeed an organization for the future. The Department's programs, policies, and organizational changes are forward-looking and in step with the rapidly changing challenges to our national security. The Navy and Marine Corps are on course and speed to meet these challenges, and we are poised to remain the preeminent military force, the force of choice for decades to come.

PREPARED STATEMENT

Thank you very much for the opportunity to appear before this committee. I look forward to responding to your questions when you return from your vote.

[The statement follows:]

PREPARED STATEMENT OF JOHN H. DALTON

OUR STRATEGY

The events of the past year continue to highlight the Navy-Marine Corps team's key national security role. Sea-based, combat ready, forward-deployed naval forces were involved in more than 15 major operations during 1995—operations that required immediate responses in support of national interests. Through actions ranging from the quick Tomahawk strike by the USS *Normandy* (CG 60) against Bosnian-Serb aggression to the expeditious recovery of a downed F–16 pilot in Bosnia by the 24th Marine Expeditionary Unit (Special Operations Capable) [MEU (SOC)], strikes by Navy and Marine Corps aircraft in Bosnia, presence operations to deter Iraqi aggression, and integrated air-land-sea support for Jordan in a time of need, naval forces continue to fulfill a vital operational role for which they are uniquely suited.

Forward... From the Sea, a Reality

Such success in meeting today's operational challenges can be attributed to thorough planning and innovative execution, but it is the strategic underpinning—introduced three years ago in "From the Sea" and expanded in 1994 by "Forward... From the Sea"—which provides the foundation for this success. This common foundation coupled with the teamwork built through a daily interaction of our naval services, explains why these expeditionary forces are frequently the theater commander's joint force of choice during the early phases of a crisis.

The Navy-Marine Corps team embodies unique core capabilities—forward presence, expeditionary readiness, and on-scene power projection from the sea. These capabilities assume greater importance as U.S. land-based overseas presence declines or is inhibited by sovereignty restrictions. Operations of our forward-deployed forces, highlighted by the diversion of the USS *Theodore Roosevelt* (CVN 71) and 11th MEU (SOC) from scheduled exercises to crisis response in Jordan, demonstrate the flexibility and mobility of expeditionary forces. They further reaffirm the role of naval forward presence as a major pillar of U.S. National Security Strategy.

During 1995, the Navy and Marine Corps maintained an average of more than 100 ships and 23,000 Marines forward deployed conducting presence missions, training and operations with military forces from more than 69 nations. Combined naval exercises provide other nations the opportunity to train with U.S. forces and to develop multilateral relationships that enhance regional stability, enabling us to form coalitions when required. Forward-deployed amphibious ready groups with embarked MEU (SOC)'s and carrier battle groups give theater commanders a flexible, responsive force that can be positioned in potential trouble spots for extended periods as a visible symbol of U.S. commitment and resolve. Put simply, naval expeditionary forces are the right mix of forces, positioned in the right place, at the right time.

Creating the Environment for Change

With heavy operational demands, the Department of the Navy (DoN) challenges all of its activities to reengineer and reinvent themselves, emulating industry's best business practices. This challenge is not a one time effort; it is a continuous commitment to change. The DoN, guided by the President's National Performance Review, began identifying new ways of doing business aimed at effecting immediate change while laying the groundwork for long-term change. Efficiencies gained from these initiatives are being transformed into resources for maintaining a ready, capable, and credible naval force. One example is the drive to enhance further the working relationship between the Navy and Marine Corps. This includes improved integration at the operational level—as the focus shifts to the littorals of the world—and a greater degree of integration in peacetime planning efforts.

Closer Department of the Navy Integration

Operational integration continues to be highlighted by the successful integration of Marine F/A–18 and EA–6B squadrons into carrier air wings. In 1995 both Navy and Marine aircraft were launched from the USS *Theodore Roosevelt* (CVN 71) and the USS *America* (CV 66) to participate in the August air strikes against Bosnian-Serb forces.

The Department of the Navy continues to integrate the Navy and Marine Corps Program Objective Memorandum (POM) process in order to better identify and articulate major Navy and Marine Corps issues early. To facilitate this integration, the two Services' programming databases are being merged into a common DoN database. Each Service will continue to develop its own submission to the DoN

POM, but such early coordination in the process will articulate program requirements more effectively and allow for better use of DoN resources.

Another step towards a closer working relationship is the movement of Headquarters U.S. Marine Corps into the Pentagon. Phase One of this move was initiated in January 1996; the Commandant and selected staff members relocated their offices adjacent to those of the Secretary of the Navy and the Chief of Naval Operations. The continued move of the Headquarters staff will occur over the next several years.

From planning and programming through training and operations, greater integration within the DoN is enhancing the unique synergy already present within the Navy-Marine Corps team.

THE NATION NEEDS THE NAVY-MARINE CORPS TEAM

The Strategic Framework

With a full range of economic and security interests widely dispersed around the globe and across vast oceans, the United States is and will remain a maritime nation. Our strategy, as outlined in the National Security Strategy and National Military Strategy, is necessarily transoceanic, and requires the five enduring roles of naval forces: Forward presence, power projection, sea control and maritime supremacy, strategic deterrence, and strategic sealift.

U.S. interests involve trade with partners located at the endpoints of "highways of the seas." These endpoints lie in the world's littoral regions, which coincide with the concentration of our vital interests in Europe, the Middle East, Latin America, and particularly in the Pacific Rim and Indian Ocean—the area that is the fastest growing economically and demographically. The littorals provide homes to more than 75 percent of the world's population, locations for more than 80 percent of the world's capital cities, and nearly all the major marketplaces of international trade. It is in our national best interest, therefore, for the littorals of the world to remain stable. The Navy-Marine Corps team regularly influences events in the littorals from its sovereign combat capable bases at sea. Routinely operating in all the world's oceans, these combat credible naval expeditionary forces exert real influence and provide assurance to friends and allies because real on-scene power still counts.

Forward Presence

Each Service plays an important role in support of the National Security Strategy of Engagement and Enlargement. With respect to forward presence and power projection, the Army and Air Force maintain permanently stationed forces on the Korean Peninsula and in Europe. Although the Navy-Marine Corps team complements the other Services as part of an overall engagement strategy, it is unique in its ability to position credible combat power overseas without the consent or imposed limitations of foreign governments. Naval expeditionary forces operate from sea bases that allow unobtrusive presence across the full range of operations, from peacetime engagement, and crisis response through major conflict.

Forward deployed and forward based naval forces are built to fight and win wars, but an equally important role is to help prevent conflict. During 1995, naval forces demonstrated their inherent flexibility and deterrent value with their rapid response to Iraqi threats after the defection of senior Iraqi officials to Jordan. To support and encourage Jordanian leadership, the President directed the USS *Theodore Roosevelt* (CVN 71) to move from the Adriatic Sea to the eastern Mediterranean, within striking range of Jordan's border with Iraq. Additionally, the previously scheduled movement of the 24th MEU (SOC), into Aqaba was accelerated. These moves, along with the repositioning of Tomahawk-carrying surface combatants, clearly demonstrated U.S. resolve to protect a friend while underscoring the maneuverability and utility of unencumbered naval forces. Cause and effect are difficult to prove in such circumstances, but it is clear that Iraqi threats against Jordan went unfulfilled, once the USS *Theodore Roosevelt* (CVN 71) moved closer to the scene.

Expeditionary Readiness

The term "expeditionary" captures the essence of U.S. national security strategy into the 21st century—countering military threats overseas, not on our own shores. The Navy-Marine Corps team provides the nation a fully integrated air, land, and sea combined arms force founded on expeditionary readiness, designed to be swiftly employed to confront threats at the source.

Naval expeditionary forces are uniquely positioned, trained, and organized to accomplish a wide range of missions, including long range strike and early forcible entry to expedite the arrival of follow-on forces. Power projection is just one of the options available to naval expeditionary forces, which can move rapidly and easily with little or no shore infrastructure and go into action immediately upon arrival. They can do this because they carry their infrastructure on their backs or in the holds of ships. Naval expeditionary forces are tailored economical packages that can accomplish the mission without having to wait for additional assets or personnel. These self-reliant, and self-sustaining forces are effective in the most austere environments, as Navy and Marine Corps units demonstrated in Bosnia and Somalia.

On-Scene Power Projection From the Sea

Sized to provide staying power with maximum flexibility anywhere in the world, naval expeditionary forces can converge on a crisis with little warning—a capability that largely is already funded in our Operations and Maintenance account. Should deterrence fail, naval forces provide immediate, on-scene power projection. Armed with the most sophisticated weapons and mobile enough to react quickly, this combined arms team can blunt an initial attack. Additionally, they are part of a globally integrated C^4I and surveillance network that enables follow-on forces to "plug-in" quickly, should they be needed. This network provides surveillance data from all sources which permits naval forces to target and strike from a variety of land, sea, and air platforms.

THE TEAM IN ACTION

In 1995, naval forces were called upon to respond to significant contingencies around the world. Carrier battle groups (CVBG's) and amphibious ready groups (ARG's) with embarked MEU(SOC)'s moved from crisis to crisis, as theater commanders called for their unique capabilities. Sea-based forces provided the preponderance of immediate response, but land-based Marine expeditionary forces, maritime patrol squadrons, and maritime prepositioning forces also supported real-world operations, along with numerous joint and combined exercises.

Summary of 1995 Navy-Marine Corps Operations

Europe

Bosnia: Operation Provide Promise (July 1992–December 1995).—This joint operation with the U.S. Air Force, involving both naval carrier and land-based air, protected humanitarian relief efforts in besieged cities of the former Yugoslavia. Navy and Marine Corps aircraft, a Marine aerial-refueling squadron, a military police unit, a Navy fleet hospital manned with both regular and reserve personnel and on-call Marines of the European theater's ARG/MEU (SOC) supplied vital support to United Nations forces.

Operation Deny Flight (April 1993–present).—Naval air forces—comprised of carrier-based air wings and shore-based Marine F/A–18D and EA–6B squadrons operating from Aviano, Italy—participated in a joint and combined operation to enforce a United Nations mandated no-fly zone in the airspace over the Republic of Bosnia-Herzegovina. The Navy-Marine Corps team also provided protective air support to United Nations Protection Forces. Maritime patrol aircraft equipped with electro-optical sensors supported overland imagery collection efforts by providing real-time still and full motion video imagery to ground commanders.

O'Grady Rescue (8 June 1995).—In response to the downing of Basher 52 by hostile fire over Bosnia, the 24th MEU (SOC), operating from the USS *Kearsage* (LHD 3), was placed on an alert to conduct one of the special operations missions for which all MEU (SOC)'s are trained and certified. Six days later, U.S. Air Force Captain Scott O'Grady contacted a USAF aircraft and, within hours of notification, Marines aboard two CH–53's covered by AH–1W Cobra gunships and AV–8B Harriers, rescued the downed pilot. The special training process proved crucial during this fast moving mission, as the MEU (SOC) achieved the goal of 6-hour rapid response. The operation stands out as a textbook example of the crisis response capability of naval forces and highlights the value of the ARG/MEU (SOC).

Operation Deliberate Force (August–September 1995).—In conjunction with U.S. Air Force units and NATO allies, the USS *Theodore Roosevelt* CVBG and shore-based Marine F/A–18D's and EA–6B's operating from Aviano, Italy conducted precision air strikes in Bosnia. In a seamless transition, the USS *America* CVBG arrived in theater, relieved the USS *Theodore Roosevelt* CVBG on station, and within 24 hours conducted strike operations from carrier-based aircraft and Tomahawk cruise missiles from USS *Normandy* (CG 60) against Bosnian-Serb forces. This use of force was instrumental in bringing the warring factions back to the negotiating table.

Adriatic Sea: Operation Sharp Guard (June 1993–present).—U.S. naval forces, including surface combatants, intelligence gathering attack submarines and regular and reserve maritime patrol aircraft, operated with combined NATO and Western European Union naval forces to block sea commerce to and from Serbia and

Montenegro, along with weapon shipments intended for all of the republics of the former Yugoslavia. The enforcement of these U.N. sanctions, over the long term, were also an important part of bringing the warring parties to the peace table in Dayton, Ohio.

Operation Joint Endeavor (December 1995–present).—The European Command's ARG/MEU (SOC) was assigned as a theater reserve for NATO forces while a Marine Corps security force detachment provided security for NATO International Force headquarters in Sarajevo. Naval construction battalion personnel built several camps for the Army in Croatia and Bosnia.

Central and Eastern Europe.—The Partnership For Peace (PFP) program was the centerpiece of NATO's strategic relationship with Central and Eastern Europe this year. Naval forces conducted three major PFP exercises with Eastern European nations. Part of our bilateral Military-to-Military Contacts program included basic seamanship exercises and numerous familiarization visits with the naval forces of this region. Units from the Sixth Fleet including assigned Marine expeditionary forces and the Coast Guard cutter USCGC *Dallas* (WHEC 716), conducted fleet and amphibious training exercises with forces from Romania, Ukraine, Bulgaria, and Albania. A major exercise was also conducted in the Baltic with long-standing friends and newly independent nation's forces. Additionally, regular and reserve Navy and Marine Corps officers were involved with in-country military liaison teams, and developed other programs to further naval contact with nations of the region.

Southwest Asia

Kuwait: Operation Vigilant Sentinel (August–December 1995).—Navy and Marine Corps combat forces and regular and reserve Military Sealift Command forces quickly responded to Iraqi threats to Jordan and Kuwait. Normal Middle East Force presence rapidly expanded as this crisis developed. In the initial stages, the USS *Abraham Lincoln* (CVN 72) and USS *Independence* (CV 62) battle groups and the 11th MEU (SOC) embarked in the USS *New Orleans* (LPH 11) amphibious ready group repositioned off the coast of Kuwait. Additionally, the USS *Theodore Roosevelt* (CVN 71) deployed to the Eastern Mediterranean. This naval task force rapidly planned and coordinated a contingency defense of Kuwait and Jordan. Within one day, Maritime Prepositioning Ship Squadron Two from Diego Garcia was underway with equipment for an additional 17,300-Marine combat force, while I MEF offload preparation party personnel deployed from Camp Pendleton. Throughout this crisis, naval aircraft made up the largest portion of U.S. strike aircraft in theater.

Iraq: Operation Southern Watch (1991–present).—Naval forces continued to share responsibility with the U.S. Air Force for no-fly operations over Iraq in support of U.N. efforts to protect Iraqi minority populations. Naval operations included extensive Navy and Marine aircraft sorties from carriers deployed to the Persian Gulf.

Maritime Intercept Operations.—Throughout 1995, surface combatants and maritime patrol aircraft continued to execute maritime interception operations in the Persian Gulf in support of U.N. sanctions against Iraq. These at-sea sanction operations, enacted five years earlier at the beginning of the Gulf War, were terminated in the Red Sea in the fall of 1994, but they continue in the Persian Gulf. By the end of 1995, surface combatants had conducted over 23,000 at-sea intercepts while simultaneously carrying out other forward presence missions.

Caribbean

Haiti: United Nations Mission Haiti (April 95–present).—Marine linguists were provided to U.S. forces supporting the U.N. mission as the successful operations Uphold Democracy and Support Democracy came to a close and the U.S. passed control of Haitian nation building to the United Nations.

Cuba: Operation Sea Signal (August 1994–Present).—The II Marine Expeditionary Force (II MEF) with reserve augmentation continued to support Joint Task Force 160 in handling, processing, and providing security for more than 54,000 Cuban and Haitian migrants. The operation was completed in early 1996, closing out a year and a half of support.

Operation Safe Passage (January–February 1995).—The amphibious ships USS *Austin* (LPD 4) and USS *LaMoure County* (LST 1194) with II MEF Marines and four anti-terrorist security teams onboard were deployed to transfer and provide security for Cubans from Panama to holding camps at Guantanamo Bay. Navy and Marine Corps forces remained in theater as a reserve for the U.S. Atlantic Command until all Cubans returned safely to Guantanamo Bay.

Counterdrug Operations.—The Department of the Navy continues to support U.S. government efforts to reduce the supply of illicit drugs entering the country. Regular and reserve Navy and Marine Corps aircraft, ships, and unique sensors contributed to detection and monitoring missions in the transit zone. Naval forces also assisted the Coast Guard with interdiction operations and provided a wide range of domestic support that included training and the use of facilities, equipment, and personnel. In addition, regular and reserve Marine Corps units provided operational support to the combatant Commanders-in-Chief, the Joint Interagency Task Force, Joint Task Force 6, and drug enforcement agencies—participating in 58 counterdrug missions along the Southwest border and in the Caribbean.

Hurricane Marilyn.—Navy units conducted numerous relief efforts for local communities affected by disastrous hurricanes in the Caribbean and the southeastern United States. As the focal point for relief efforts, Naval Station Roosevelt Roads in Puerto Rico, was the base for disaster material staging and support. Naval station personnel also provided airlift for inter-island transport, and helped officials survey the damaged areas. While Navy seabees helped repair damaged facilities, Navy divers surveyed and cleared navigational channels for St. Thomas and St. Croix.

Russia

As a clear sign of improving relations, the United States and Russia no longer target each other with strategic nuclear weapons, and have increased the scope and complexity of their combined military exercises. In August 1995, the two countries conducted Exercise Cooperation From The Sea in Hawaii executing both at-sea and amphibious training. This historic event marked the first time that the U.S. and Russia have conducted a bilateral military exercise in U.S. waters.

Northeast Asia

Korea.—Events in Korea remained relatively calm during 1995. Continuous naval forward presence was a key contributor to this region's stability. If events in Korea had required greater U.S. military presence, naval expeditionary forces were prepared to expand rapidly the theater commander's air, land, and sea capabilities.

Southeast Asia

Thailand/Vietnam: Operation Full Accounting (March–April 1995).—Marines from III MEF continued to support ongoing joint task force efforts with helicopter lift in the identification and recovery of U.S. servicemen unaccounted for after the Vietnam War. Additionally, the annual combined U.S./Thai exercise, Cobra Gold, continued to reinforce the strategic interest we have in the region.

Indian Ocean

Somalia: Operation United Shield (February–March 1995).—As the humanitarian relief mission came to an end, the Navy-Marine Corps team found itself in the world spotlight again as the USS *Essex* (LHD 2) amphibious ready group with the 13th MEU (SOC) embarked and USS *Belleau Wood* (LHA 3) with a special purpose Marine air-ground task force embarked covered the withdrawal of U.N. troops from Somalia. Using early arriving naval forces, a Joint/Combined Task Force totaling 23 ships and 16,500 personnel was formed under the command of I MEF's commanding general and Navy Central Command in the region. Despite hazardous conditions, all personnel were safely evacuated with zero casualties. The Navy-Marine Corps team was, once again, the first to be called and the last to leave.

Freedom of Navigation Program

An essential element of U.S. foreign policy is ensuring free and safe transit through international waters and air space as a matter of legal right, not contingent upon the approval of adjacent countries. Naval forces are critical tools in demonstrating transit rights under international law. In 1995, Navy ships and aircraft conducted numerous freedom-of-navigation operations in or through areas where other nations have maintained sovereignty claims that contradict existing international agreements. Ratification of the U.N. Law of the Sea Convention, sent to the U.S. Senate in October 1994, is crucial to global acceptance of the legal norms that guarantee navigational and overflight freedoms. A stable oceans regime under the Convention will guarantee the ability of naval forces to support national interests "Forward . . . From the Sea".

Major Joint/Combined Exercises

Joint and combined exercises form a cornerstone of U.S. engagement strategy. Forward-presence forces promote regional stability by exercising routinely with military forces of other nations. This year naval forces participated in more than 130 combined exercises. Large scale annual exercises with our friends and Allies proved particularly effective in promoting understanding and interoperability, and laying the groundwork for future coalitions.

The annual UNITAS deployment is a primary means of supporting regional stability in the Western Hemisphere. For five months each year, regular and reserve surface combatants and P–3 aircraft, a submarine, and Marines embarked in an amphibious ship circumnavigate South America. At each stop, our naval forces exercise with the host nation's air, sea, and land forces. These exercises generally provide the only opportunity each year for these Latin American nations to operate with U.S. forces; they commit a large portion of their military exercise budgets to UNITAS, which demonstrates our interest and resolve to cooperate in a region that otherwise would receive little U.S. military attention.

Regional stability in Southeast Asia is supported by the Pacific Fleet's Cooperation Afloat Readiness and Training program, patterned after the UNITAS deployment. This program fosters cooperative engagement, coalition building, interoperability, and training through the participation of U.S. naval forces in an annual series of bilateral exercises. The inaugural deployment occurred May–July 1995 and involved a U.S. force made up of two frigates, a submarine, and an amphibious ship with embarked Marines and special forces. Exercises included military forces from Singapore, Thailand, Malaysia, Indonesia, the Philippines, and Brunei.

Exercise Cobra Gold is an annual event involving U.S./Thai military forces training in a large-scale land, air, and sea joint/combined operation. U.S. 7th Fleet ships and Marines from III MEF, including the 31st MEU are among the naval expeditionary forces that benefit from this annual exercise. U.S. participation enhances U.S./Thai military interoperability and provides clear evidence of continuing U.S. interest in the region.

Exercise Ulchi Focus Lens, one of the largest combined command post exercises, involved staffs from all four Services as well as the Republic of Korea (ROK). Under direction of the Commander, Combined Forces Command/United Nations Command these forces exercise annually, focusing on crisis response and transition from peacetime to war. Unique to this year's exercise was the initial testing of a Combined Marine Expeditionary Corps that integrated forces from I and III MEF with ROK Marines.

The principal naval demonstration of U.S. interests in northern Europe is the annual Baltic Sea Operation, a three week exercise involving three U.S. surface combatants and military forces from almost all the countries in the Baltic region, including those from the former Soviet Union.

The Navy continues to dedicate surface combatants as participants in each of two NATO led maritime forces, Standing Naval Forces Atlantic and Standing Naval Forces Mediterranean. During 1995, both of these forces contributed to the enforcement of the U.N. mandated embargo in the Adriatic. With the ongoing implementation of the Bosnian peace agreement, these forces may revert to their traditional role of peacetime regional engagement and interoperability.

TOTAL FORCE INTEGRATION

Linchpin for Joint Operations

Our national strategy relies on the ability of each service to operate jointly, to ensure successful mission performance across the full range of military operations. Essential to the success of joint operations is the integration of all supporting arms. This is a capability inherent in naval expeditionary forces and is the basis on which joint air, ground, and sea task forces can be built. Exercising and operating daily in an integrated fashion, the Navy and Marine Corps provide the theater commanders forces that are uniquely suited as the linchpin for joint operations.

First To Arrive, Last to Depart

Forward-deployed naval expeditionary forces often are the closest to the scene of emerging crises. As a result, they can form the core of a joint force that contains crises and expedites the arrival or departure of follow-on forces. Such was the case again in 1995. In Operation Vigilant Sentinel the USS *Theodore Roosevelt* (CVN 71) repositioned to respond to Iraqi threats and was ready to assume duties as the Joint Task Force Headquarters. In Operation United Shield, the 13th MEU (SOC), embarked in the USS *Essex* (LHD 2) amphibious ready group, formed the core of a Combined/Joint Task Force headed by I MEF's Commanding General, charged with covering the withdrawal of U.N. forces from Somalia.

Joint Task Force Headquarters

Future joint task force headquarters will be organized around the service component staff first on the scene that can work in the joint arena. As demonstrated repeatedly, working with and integrating the elements of air, land and sea has become second nature to naval expeditionary forces. They are ideally suited to function as a joint task force headquarters because they deploy in flexible, task-organized groups and possess a broad range of capabilities that cut across a wide variety of operations. In 1995, operations in Somalia and Guantanamo Bay, Cuba demonstrated this capability. In each case, Marine and Navy assets, with joint and other service component augmentation, manned and equipped the joint task force headquarters.

Working closely with regional Commanders-in-Chief and their component commanders, the Navy and Marine Corps are aggressively tailoring manning and training requirements to support the operation of a joint task force headquarters. As part of this initiative, the Commandant of the Marine Corps called for the establishment of a standing capability that can respond to emerging crises anywhere in the world. Navy numbered fleet commanders worldwide are ready to assume duties as Joint Force Task Group or Force commanders on short notice.

Equipment Interoperability

Naval expeditionary forces are outfitted with the command and control links needed for joint operations. This naval C^4I not only supports maritime and littoral operations, but also provides an expandable core infrastructure for joint C^4I. This provides combatant Commanders-in-Chief (CinC's) and follow-on joint forces access to a common battlespace picture, quickly and seamlessly. With this common core, the Navy and Marine Corps also have a well defined basis and experience for multilateral operations with friends and allies.

New developments in naval C^4I continue to enhance joint interoperability. The Joint Maritime Command Information System (JMCIS) forms the current basis for both ashore and afloat Copernicus C^4I systems for the Navy and MAGTF C^4I for the Marine Corps. In addition, the JMCIS core design is the baseline element within the Global Command and Control System, the CinC's' strategic level joint command system. Continued installation of the Contingency Tactical Air Planning System in aircraft carriers, command ships; and in the Marine Tactical Air Command and Control systems will improve their ability to support a Joint Force Air Component Commander. The Marine Corps is buying equipment that will integrate fully with joint task forces ashore while ensuring connectivity to command and control nodes afloat. New systems such as the Digital Wideband Transmission System will allow Navy and Marine units afloat to extend telephone switching and computer circuits ashore as well as among afloat units.

Joint Training and Exercises

Carrier battle groups and amphibious ready groups with embarked MEU (SOC)'s train to stay on the cutting edge of joint operations. Prior to each deployment, naval units participate in joint task force (JTF) exercise scenarios with Army, Air Force and Coast Guard units, to hone their readiness to function in a joint operational environment. In 1995 alone, naval forces participated in 123 joint exercises. Through the CinC exercise program, numbered Fleet and MEF headquarters staffs train to serve as JTF headquarters. Navy and Marine Corps unit exercise programs focus on the participation of naval forces within the larger JTF Command and Control Structure. Personnel training and education programs also emphasize understanding the capabilities and employment of joint forces. Joint Air Operations, fire support, and exchange programs are just a few ways that naval forces work with, and learn from, the other Services.

Joint Force Missile Defense

Protection from ballistic missile attack—including missiles armed with nuclear, biological, or chemical warheads—is crucial to the survival of threatened populations and U.S. military forces arriving early in theater. In the absence of prepositioned land-based missile defense systems, this essential regional and force protection must come from ships. To meet this vital and urgent requirement, the Joint Requirements Oversight Council approved a theater missile defense mission needs statement that calls for the development of a sea-based Theater Ballistic Missile Defense (TBMD) capability.

The Navy is making great strides toward meeting these requirements. Naval Area TBMD capability, currently planned for fielding in fiscal year 1998, and follow-on development of Naval Theater Wide TBMD will provide defense-in-depth over an entire theater of operations. Major savings in development time and cost are realized by building on the existing capabilities and engineering base of Aegis equipped Ticonderoga-class cruisers and Arleigh Burke-class destroyers. In addition to providing an early missile defense umbrella, sea-based TBMD operates without host nation constraints and does not require airlift resources in the critical early days of conflict—resources that are currently dedicated to bringing ground-based TBMD into theater.

Still in the early stages as a potential TBMD system, the Marine Corps Improved Hawk Missile System demonstrated short range TBMD capability during recent tests. The Marine Corps is exploring the potential of firing Navy Standard Missiles from Hawk missile launchers, to extend TBMD coverage and standardize weapons procurement.

Sealift and Sea Control

A unique Navy mission in any joint campaign plan is the movement and protection of military sealift. More than 90 percent of the material and equipment required for U.S. participation in a major regional contingency must arrive by sea. The proliferation of submarines in regions of key U.S. economic and security interests reiterates that the U.S. Navy must maintain the anti-submarine warfare capability to counter this potential threat. The Desert Storm Scud missiles stimulated new efforts in TBMD developments, but British lessons learned during the Falkland Islands War with regard to submarines must not be forgotten. Belligerent submarines impact the land campaign not only through the attrition of sealift ships, but also through disruption of sea lanes and choke points. Navy programs and acquisition focus on both the open-ocean and littoral threats: Shallow water anti-submarine torpedoes; Surface ship torpedo defense; Advanced Distributed System of underwater hydrophones; Sensor Arrays; and Explosive echo ranging and low frequency active sonar.

Anti-submarine warfare remains critical to the success of power projection from the sea as well as any land campaign that relies on seaborne logistics for success. It is challenging, force level intensive and requires a significant commitment in training to field an effective force.

Reserve Forces Integration

The National Military Strategy focuses our military capabilities on flexible and selective engagement to meet both anticipated and unanticipated global threats. Supporting this strategy with fewer forces is a challenge that is being answered by the increased integration of Reserve forces into both wartime and peacetime operations. This integration must be seamless and must involve Reserve forces with a solid foundation of highly capable leadership, people and equipment. These standards are being attained through equipment modernization, increased integration of Reserve training with that of regular forces and the identification and retention of high quality people.

When personnel rightsizing is completed in fiscal year 1999, the Naval Reserve will make up 20 percent of a Navy that has the proper mix of individuals and units to meet the CinC's' requirements. The Marine Corps has redesignated its Reserve Marine air-ground task force as augmentation command elements (MACE) of the Marine expeditionary forces (MEF's). Other initiatives include:

—Decentralized control of Active Duty Special Work to allow field commanders better access to Reserve forces.

—Installation of the Reserve Information Network to provide a link to the Total Force Marine Corps and a gateway into the Department of Defense information network.

One Team

The Navy and Marine Corps Reserve were integral parts of Total Force operations during 1995. Naval reservists contributed to military operations, both in peacetime support and in crisis response, with more than 1.7 million man-days of support. They deployed as part of the USS *Theodore Roosevelt* battle group, flying EA–6B combat missions in support of operations in Bosnia. They also augmented fleet hospitals in Zagreb, Croatia and Guantanamo Bay, Cuba. Ten Naval Reserve Fleet (NRF) ships deployed to the western Pacific, Great Lakes, Northern Europe and South America. While assigned to NRF ships and maritime patrol squadrons, Naval reservists participated in Operations Provide Promise and Deny Flight. During 1995, NRF ships also provided more than 18 percent of the total ship steaming days dedicated to counterdrug operations.

The Marine Corps Reserve also was heavily engaged in 1995. More than 500 Reserve Marines participated in Operation Safe Haven/Sea Signal at Guantanamo Bay, Cuba. Marine Corps Reserve KC–130's flew Reserve Marine engineers and security personnel to Albania in support of Operation Uje Kristal. Other Reserve operations included exercises in Norway, Thailand, Kuwait and Korea. Of special note is the upcoming NATO exercise, Battle Griffin 96—a predominately Reserve forces event focused on the Marine Corps Norway air-landed prepositioning program that will test and highlight the command and control capabilities of our reserve forces.

The shared goal for the Navy and Marine Corps is to attain a balanced, affordable Total Force, able to meet peacetime and crisis commitments immediately. This is being accomplished through the seamless integration of a well trained, well equipped reserve force.

PEOPLE

The heart of the Department of the Navy's readiness is its people who kept faith with the Navy and Marine Corps through the rightsizing process and who now look to the future. Operating some of the most technologically advanced equipment of any force in the world, they must be ready every day of the year. Maintaining highly motivated and trained personnel during these challenging times requires innovative leadership, diligent planning and careful management of resources.

Shaping the Force

During 1995, the Navy's active end strength was reduced from 468,662 to 433,744. This will continue until the Navy reaches 394,900 active Navy and 96,000 reservists by 1999. The current force of 174,000 active duty Marines will be maintained, while reserve end strength is near the authorized level of 42,000. Department of the Navy civilian staffing continues to keep pace with overall downsizing objectives, with a projected decline from 240,044 in fiscal year 1996 to 204,363 in fiscal year 2001.

Careful application of Congressionally authorized force shaping tools has allowed the Navy to adjust officer, enlisted and civilian numbers gradually and fairly. Separation programs have been fully funded to ensure an orderly transition to civilian life. The Department has kept faith with mid-career personnel by avoiding involuntary separations before retirement eligibility. There is no longer a need for an enlisted selected early retirement (SER) program and the requirement for officer SER has been significantly reduced. We are working to eliminate it.

We are working closely with the Army and Air Force to seek permanent grade relief from DOD Officer Personnel Management Act grade restrictions. These restrictions were in place before the drawdown and rightsizing of the force and prior to establishment of significant joint field grade requirements mandated by the Goldwater-Nichols DOD Reorganization Act.

Department of the Navy civilian employees represent about 25 percent of our total work force end strength. Although the majority of civilians contribute directly to the readiness of operational forces, many others provide essential support in such diverse functions as: Training; medical care; communications; morale, welfare and recreation programs; and research, development, and acquisition of new platforms and weapon systems.

We continue to make every effort to minimize the adverse impact of necessary force reductions on our civilian employees. Aggressive use of separation incentives has diminished the need for forced reductions.

Recruiting

The primary recruiting challenge is continuing to attract sufficient numbers of high quality people. Over the past year, Navy and Marine Corps recruiting commands continued to battle one of the toughest recruiting climates in the history of the all volunteer force. The market of eligible young people, 17–21 years old, is one of the smallest in memory and the propensity to enlist is low. This has been aggravated by the policy of some schools to withhold cooperation from military recruiters. Additionally, a strong economy has contributed to a challenging recruiting environment.

In 1995, our recruiting forces met the challenge. We are increasing the resources available to recruiters as we look ahead to 1996 and the task of bringing in almost 60,000 new Sailors and 40,000 new Marines. To meet these requirements, we will continue to assign the best people to recruiting duty and provide them a comparable quality of life while working in remote locations, far from the support of military installations. Recruiters greatly benefited from Congress' fiscal year 1996 plus-up for recruiting and advertising and the authorization for a higher level of special duty assignment pay.

Fiscal year 1995 was also a successful year in officer recruiting. We met very late-in-the-year requirements for more Navy pilots, Naval Flight Officers, nurses, and doctors—and made significant gains in minority representation across all officer categories. Our Immediate Scholarship Decision and NROTC scholarship programs worked particularly well, as did the Baccalaureate Degree Completion Program. The Navy's Seaman-to-Admiral Program and the Marine Corps Enlisted-to-Officer Commissioning Programs provided broader career opportunities for our most talented enlisted personnel.

The Navy and Marine Corps are remaining competitive in the recruiting environment by making innovative use of new systems and technology, such as advertising on the Internet and creating CD–ROM multimedia sales presentations. For the long term, the Department remains committed to strong and adequately resourced recruiting programs. Motivated recruiters, adequate budgets and meaningful incentive programs such as the Montgomery G.I. Bill, the Navy and Marine Corps college funds and the enlistment bonus programs are key to continued success. With continued support and sustained, effective advertising we can attract the needed numbers of high-quality young men and women we need.

Retention

As the drawdown and rightsizing nears its conclusion, we must redouble our efforts to retain high caliber people. Maintaining adequate retention levels not only ensures high readiness levels through retention of highly trained, critical skill personnel, but also eases the pressure on our recruiting force by lowering the yearly accession requirement. We are regaining the ground lost during rightsizing and have policies in place to continue the present positive trends in first- and second-term retention established during the past two years. In 1995 the Marine Corps met its enlisted retention goals for first-termers (20.4 percent) and second-termers (73.1 percent). The Navy also met 1995 goals for first-termers (36.4 percent) and second-termers (49.2 percent).

A number of programs and initiatives presently under way have a major impact on retention: Quality of life enhancements; improved advancement opportunities; competitive pay and benefits; selective reenlistment bonuses remain the most effective program for short term retention of highly skilled enlisted personnel; and protection of retirement benefits for the vital retention of career personnel.

The Navy Goal Card is a new personal management tool that also supports recruiting and retention efforts. It is a first ever enlisted career path chart that assists first-term sailors in setting and achieving personal and professional goals. Available now on the Internet, Goal Card continuously updates educational opportunities and provides information on jobs, training and advancement for anyone thinking of entering or staying in the Navy.

Enhancing Quality of Life

A comfortable standard of living, positive work environment, and excellent care of families are essential in retaining capable people. The following programs and initiatives support these requirements:

—Legislative initiatives have been proposed to authorize quarters allowances for single E–5's on sea duty. Additional proposals support payment of Basic Allowance for Quarters/Variable Housing Allowance to joint military couples (without dependents) assigned to sea duty as well as single E–6's and above who receive permanent change-of-station orders to deployed units.

—Bachelor and family housing continue to be high priority quality of life issues in the Department. We continue working to provide quality housing for all personnel and their families, looking first at private sector housing and partnerships with private-sector investors. Approval of the new DOD construction standard for unaccompanied enlisted personnel housing will significantly improve the quality of life of our bachelor enlisted personnel, but available funding will delay attainment of this standard well into the next century. An aggressive housing referral program provides comprehensive listings of available community housing, to ease the transition of newly transferred families. The Navy's "Neighborhoods of Excellence" program and the Marine Corps' "Housing Campaign Plan" provide long-term vision and goals for bringing housing up to modern standards.

—Chaplains supply around-the-clock ministry and pastoral presence to deployed units and serve as linchpins in the personal connection between sea-service personnel and their families. Chaplain crisis intervention ministry is crucial in times of personal loss, bereavement and transition. Their awareness and prevention programs dealing with suicide, HIV/AIDS and domestic violence—in addition to the core values training they provide—are integral to quality of life and combat readiness.

—The Navy Judge Advocate General's Corps and Marine Corps Judge Advocates provide extensive legal support for the sea services. The Navy and Marine Corps Legal Assistance program—not a statutory entitlement, but an "as resources are available" program—continues to emphasize quality of life programs. In 1996, a free Electronic Tax Filing Program will be available at 90 Navy and Marine Corps bases and installations worldwide, enabling quicker tax refunds and significant individual savings.

—Voluntary education programs are significant contributors to recruiting, retention and readiness. They provide continuous access to educational opportunities even during deployments and assignment to remote or overseas locations. The

Navy's program for afloat college education offers college courses and academic skills modules to individuals deployed on ships. Academic skills learning centers will be available at 52 shore locations by fiscal year 2001. The Marine Corps satellite education program, located at 14 sites, provides two way real-time video connection between scattered classrooms and an instructor, greatly assisting the pursuit of a college degree even during a change of duty stations.

—Family service centers encompass a variety of important programs, including relocation and transition assistance, deployment support, and personal financial management. The Navy and Marine Corps have established a "New Parent" program, designed to help our younger personnel meet their family responsibilities.

Effective quality-of-life programs have quite a positive impact on our recruiting and retention efforts—and, ultimately, our combat readiness.

Meeting Medical Needs

The Department of the Navy is committed to providing the highest quality health care to active-duty and retired service members and their families. The Navy Medical Department's primary mission is readiness. This means keeping people on the job, at sea and ashore, by providing medical services close to the operators and by moving information—instead of patients—whenever possible. To achieve this, U.S. based and forward deployed medical department personnel are employing new and innovative technology and procedures:

—Advanced technologies such as teleradiology and other telemedicine techniques are revolutionizing quality on-site patient care. This results in drastic reductions in the number of patients transported to medical facilities, with a resulting increase in readiness and significant savings in time and money.

—Fleet Marine Force medical units continue to pursue solutions in support of the Operational Maneuver From the Sea concept which links maneuver at sea directly with maneuver ashore. The fast paced action envisioned by this concept requires more mobile, responsive and lighter medical units. Medical battalions are addressing these needs through new initiatives, such as the recently developed shock trauma platoons. Emerging medical technologies are analyzed continuously so that new advances can be incorporated into operational medicine supporting Marine forces worldwide.

—The Total Health Care Support Readiness Requirement model will ensure that we have the right number and mix of regular and reserve medical department personnel to meet our wartime and day-to-day operational missions. Navy medicine is a leader within DOD medicine with this new tool for assessing manpower requirements.

—The Defense Women's Health Research Program addresses emerging health issues that have surfaced with the expansion of assignment opportunities for women in shipboard and other operational billets.

—We are streamlining procedures and policies to meet our needs better. Policy changes in the aviation physical examination review process have reduced backlogs and man-hours without compromising quality of care. Implementation of system wide changes in patient appointments is greatly reducing waiting times.

—A new method of providing on-site optical support to fleet and field units is being tested through the use of mobile vans outfitted with optical fabrication equipment.

We continue to work closely with the Assistant Secretary of Defense for Health Affairs and other services' surgeons-general to establish TRICARE regionally managed care support contracts. These regional contracts will create a seamless medical system that provides beneficiaries a choice of quality health care services. As the lead agent in San Diego, California, and Portsmouth, Virginia, the Navy is educating the beneficiary population about the benefits, choices, and responsibilities of TRICARE Prime enrollment.

The need to keep faith with the armed forces' retired community with regard to medical benefits requires constant vigilance. The Department of Defense continues to work for authority to receive reimbursement from Medicare for health care provided to those medicare eligibles within the Military Health Services System (Medicare subvention). Congressional approval of Medicare subvention would allow Medicare eligibles to enroll in TRICARE Prime and allow DOD to improve medical services to retirees while providing quality health care at a reasonable cost. It would also allow Health and Human Services to control medical spending for Medicare eligible retirees enrolled in a Health Maintenance Organization program with costs significantly below fee for service care. In the interim, Medicare eligible patients continue to be seen by military treatment facilities on a space available basis.

Equal Opportunity

A key component of the Navy and Marine Corps vision is a totally integrated and diverse team of regular and reserve personnel, encouraged, mentored and developed by their peers and leaders to attain their full potential through a wide range of career opportunities and professional challenges. Attaining this vision requires careful attention to all aspects of our plans to ensure equitable assignment of minorities and women into all available career fields.

Recent changes have opened many new positions to women. More than 94 percent of all Navy billets and 93 percent of all Marine Corps occupational specialties are now available. Today the most senior women in the active-duty military, enlisted and officer, are Marines. All new Navy surface ships are now designed to incorporate berthing for officer and enlisted women including the Arleigh Burke-class destroyer USS *Benfold* (DDG 65), the first U.S. Navy ship built from the keel up with habitability modifications necessary for full integration of women into the crew.

A significant equal opportunity undertaking during the past year was the Secretary of the Navy's "Enhanced Opportunities for Minorities Initiative," which called for the examination of all aspects of recruiting, accessions, promotion, retention and augmentation. The intent of the initiative is to create a Navy and Marine Corps that reflect the demographics of American society. Based on Census Bureau population forecasts for the year 2005, the Department should reflect 12 percent African-American, 12 percent Hispanic, and 5 percent Asian Pacific Islander/Native American (12 percent/12 percent/5 percent) across all ranks, rates, and designators. Attaining this goal will take 20–25 years, after allowing those accessed under the new percentages to progress through their full careers, with lasting effect on the demographics of the Department of the Navy. We will increase accessions each year in order to meet the overarching goal of 12 percent/12 percent/5 percent minority officer accessions by the year 2000. Our fiscal year 1996 goal exceeds minority representation within the most recent class of college graduates.

Safety

Operational safety and survivability initiatives in training and actual combat not only save lives, but reduce losses to the fleet and the Fleet Marine Force. Shipboard damage control and firefighting upgrades have steadily reduced losses over the past ten years. These efforts decreased dollar losses in both surface and subsurface mishaps from $93 million in fiscal year 1990 to less than $21 million in fiscal year 1994. In aviation, emerging technologies from commercial aviation and other military sources are being assessed in demonstrations at several locations.

Even in our best year ever for modern aviation safety, any loss is unacceptable. Each mishap is investigated thoroughly for information that will prevent repeated mishaps from the same cause. Early in 1995, flight recorders were being retrofitted into many naval combat aircraft. This will provide vital information to further reduce losses. Other technologies that hold promise for reducing operational losses are being assessed and implemented in fleet aircraft. This is an ongoing, high-priority effort for the Safety and Survivability "Reinvention" Lab.

The Navy Occupational Safety and Health program focuses on protecting military and civilian personnel in their workplaces. It is essential to military readiness that safety and occupational health goals and objectives be integrated into the Department of the Navy's mission at every level. To achieve this, the program has published a strategic plan that focuses on four main initiatives in the strategic plan: Process review and measurement, communication and information systems, planning and engineering, and training and education.

Through these initiatives, the Department continues to emphasize personnel safety and health awareness. We are targeting high risk/high hazard operations afloat by developing new training and awareness videos that discuss safety and health issues.

READINESS

Today, Navy and Marine Corps readiness is high, but there remains concern for the future. Readiness is key to forward presence, crisis response, war prevention, and winning wars. It remains a top priority. A smaller force structure demands that we maintain technological superiority over potential adversaries. Retaining that superiority means recruiting and retaining quality people, and providing them with the finest equipment possible. We must make the correct decisions now to support both current readiness and future capabilities.

The Navy and Marine Corps require fewer supplemental contingency funds than the other Services because most naval crisis response capability is inherent within routine forward deployments. Such operations are included in the "sticker price" of naval forces. Nevertheless, our operating budget leaves little room to support unfunded contingencies that require us to deploy additional ships, squadrons, and Marines. Unplanned deployments often cause reductions in other accounts, which affect current readiness. The Navy and Marine Corps Active and Reserve Operations and Maintenance (O&M) appropriations bear the burden of supporting unfunded contingencies. Diverting programmed O&M funds delays vital equipment repairs and also disrupts quality training. These disruptions to approved programs can be minimized when supplemental appropriations are passed in a timely manner.

Future Readiness

Future readiness can be answered by sizing the force correctly. A force that is too small for its operational commitments burdens both people and equipment. As rightsizing slows and infrastructure stabilizes, maintaining readiness to support national security interests requires close scrutiny. Heavy demands on forces this year indicate that previously programmed force levels require adjustment to meet the tempo of operations actually being experienced. We need to make these adjustments to avoid excessive impact on people, equipment and readiness.

Force sizing is only part of the readiness equation. Future readiness requires investing now in the programs of the future. Both the Navy and Marine Corps seek increases in procurement and R&D accounts to ensure future readiness. Replacing aging platforms such as CH–46 medium-lift helicopters and LPD–4 Class amphibious ships in the near term, and investment in next generation platforms and systems such as the 21st Century surface combatant (SC–21) and the Joint Strike Fighter (JSF) aircraft in the long term, are essential for that to occur.

Impact of Environmental Protection on Operations, Training and Testing

The Department's environmental programs are designed to ensure a ready, cost effective and environmentally conscious force. This includes complying with all applicable environmental laws and regulations and protecting natural resources. In order to meet this challenge, the Department has developed a long term environmental strategy that is being integrated into everyday business practices and operations.

Some environmental requirements have caused significant delays and additional expense. For example, the ship shock trial of the USS *John Paul Jones* (DDG 53), scheduled to occur off the coast of California, was delayed for approximately 30 days by litigation that questioned compliance with environmental rules. In another example, older regulations designed to protect against contamination from liquid polychlorinated biphenyls (PCB's) in transformers and capacitors now affect the ability to dispose of decommissioned ships. New proposed PCB regulations could increase costs and delays for ship maintenance and disposal.

The expansion of the Humpback Whale Sanctuary in the Hawaiian islands required extensive high level coordination to ensure that routine Navy and Marine Corps operations around Oahu and testing and development of systems at Barking Sands could continue. Regulations established for a marine sanctuary off the Northwest Pacific coast of the United States drastically reduced close-in bombing practice in a long used training area. New regulations intended to preclude harassment of marine mammals are the subject of ongoing discussions, between the Department of the Navy and the National Marine Fisheries Service, to ensure that costs and procedures associated with routine and special exercise operations do not significantly increase.

The Department is working hard to ensure that laws and regulations are sensitive to the requirements to maintain a ready and effective national defense and, equally, that naval operations minimize adverse effects on valuable national and global resources. When we do our job well, both military readiness and the environment are protected.

TECHNOLOGY—INNOVATION AND MODERNIZATION

Events of the past year clearly demonstrate that we live in an uncertain world that requires naval forces to meet a wide range of contingencies. Through a combination of innovation and modernization we are building and maintaining naval forces that are ready to meet those contingencies. We are exploiting the explosive changes occurring in high technology, to conceive and build new and more capable platforms and weapon systems for the future.

Modernization

Economic conditions dictate that we take advantage of emerging technologies to breathe new life into some of our older systems and platforms or tie together disparate systems to synergize the whole. Capability upgrades to current ships, naval tactical aircraft and various weapon systems are also critical parts of the modernization program. Continued upgrades of our ultra high frequency, super high frequency, extremely high frequency, and commercial satellite communications capability are necessary to enhance the support and integration of joint/combined operations. The Cooperative Engagement Capability, successfully demonstrated last year, provides the opportunity to tie an entire theater of currently existing systems together for targeting. Funding these modernization programs provides a tremendous boost to capabilities at a lower cost.

Acquisition Investment

We are investing today in the platforms, equipment and infrastructure for future naval forces. Tomorrow's naval force will be smaller than its Cold War predecessor but much more advanced technologically. The Department's acquisition investment strategy makes the most of scarce procurement dollars without compromising quality. It also emphasizes that future programs must produce survivable multimission platforms and weapon systems—true force multipliers—capable of meeting a great variety of mission requirements.

This strategy involves prudent risk. Many of the platforms and weapon systems in the fleet today were procured during the 1980's and early 1990's. Lower Post-Cold War force level requirements allowed retirement of older and less capable platforms and weapon systems, leaving us with a platform average age that is actually lower than it was when annual procurement budgets were much higher. Based upon current production rates, however, average age will steadily increase. Current programs such as the USS *Arleigh Burke* (DDG 51)-class destroyer, the Osprey (MV–22) tilt-rotor aircraft, the Super Hornet fighter/attack aircraft (F/A–18E/F) and the advanced amphibious assault vehicle (AAAV) will help to ameliorate this effect and are critical parts of Navy and Marine Corps future readiness.

To support long term acquisition, we plan to increase procurement accounts. Resources for this must come from four areas: Cost reductions from acquisition reform, execution of base realignment and closure recommendations and infrastructure reduction decisions, actions to reduce the operating and support costs of our systems, and outyear real budget growth.

The fiscal year 1997 budget request represents the continuation of a carefully constructed acquisition investment plan. It extends the modernization strategy through an integrated program approach.

Acquisition Leadership

Within the acquisition community, the Department is embarking on a bold new initiative in the Naval Research, Development and Acquisition organization. Built along the principles of Total Quality Leadership, the combined Navy and Marine Corps acquisition team leadership is focusing on improving the planning and processes for developing, acquiring and supporting the products and services provided to naval forces.

The Department is dedicated to using a team approach, built on trust and a true partnership with industry, the other Services and allies to define cost effective warfighting options for the future. We plan to be flexible and adaptive, committed to transforming ourselves and the products we provide to meet the challenges of an affordable Navy and Marine Corps of the future. In the coming year, the Department will publish a strategic plan that lays out our vision, mission and guiding principles and identifies goals and objectives.

This is a period of significant organizational change. Plans are well under way to geographically disperse the majority of the program managers, program executive officers and systems commands from Arlington, Virginia, to Patuxent River, Maryland, Mechanicsburg, Pennsylvania and San Diego, California. The Department is committed to continue delivery of the very best products and services by learning new ways to communicate, exchange information, manage, and lead.

Business Strategy

The Department also recognizes the need to continue improving business practices by finding additional ways to reduce costs and make the acquisition process more responsive to rapidly changing technology. Acquisition reform initiatives support modernization programs by addressing three key areas: Advanced technology insertion, cost reduction, and avoidance of platform obsolescence.

In several critical areas, technological advances in the commercial sector outpace those in the defense sector. This is particularly true with information and communications systems. The Department is taking advantage of commercially developed advanced technologies by incorporating them into our acquisition programs earlier. Cooperative Engagement Capability is a good example—more than 60 percent of this program involves commercial off-the-shelf and non-developmental technology, which integrates and shares real time detection data from a variety of sources, including ships' sensors and units ashore.

Modern business practices were the focus of a Department of the Navy CEO Conference that took place in Norfolk, Virginia in November 1995. This conference was the first in an annual series intended to foster dialogue between the Department of the Navy and its supporting industrial base. The first conference was co-chaired by the DoN Acquisition Reform Executive and the president of a major defense contractor. This cooperative effort will improve acquisition efficiency as well as day-today operations.

Enhanced warfighting results from technology insertion. Closer ties are being developed between the science and technology community and the operators to establish realistic acquisition program priorities based on warfighting needs, technological attainability and realistic life cycle affordability. The Navy and Marine Corps also are increasing effectiveness and extending the life of existing systems through affordable near term improvements such as upgrades to the Marine Corps' UH–1N Utility and AH–1W Attack helicopters and to the Navy's P–3C maritime patrol aircraft and SH–60 helicopters. Science and technology roadmaps are being developed to outline critical path developments, risk reduction for advanced system performance achievement and basic and applied research in the production of new systems. Navy and Marine Corps programs benefit from increased attention to manufacturing science and technology. Specific examples include focused attention in advanced composite structures for integrated hull and systems designs, production of multifunctional integrated systems, agile ship construction integrated into advanced design procedures and simulation capabilities for systems performance and production.

Foreign Military Sales (FMS), international cooperative programs and defense industry-to-industry cooperation with other nations provide ways to stretch the investment budget by minimizing duplicative defense technology investments and maximizing commonality of deployed equipments. Cooperative research and development agreements with friends and allies, such as those supporting the development of the anti-air Sea Sparrow missile and the AV–8B Harrier aircraft, yielded foreign contributions of over $250 million in calendar year 1995 and $1.2 billion over the past nine years. FMS initiatives, such as sales of F/A–18 aircraft and Harpoon surface-to-surface missiles, support U.S. foreign policy, enhance interoperability and reduce Navy and Marine Corps production costs by combining procurement requirements with purchases by other nations.

Today's platforms are more expensive, but they are also significantly more capable and reliable. Since ships have long service lives, they are designed to accommodate future upgrades. Existing platforms are being modernized with weapon systems to allow future growth and technology refreshment. To this end, extensive use is being made of open systems architecture, commercial standards, modular components and fiber optics.

Institutionalizing Innovation

The Navy and Marine Corps have only begun to exploit the possibilities offered by digital communications, miniaturization, precision guidance and a host of other technologies. But ultimately people, not machines, define successes in war. In addition to pursuing integration of technologies that are here today but not yet on-hand, the Department is also exploring innovative new organizational and doctrinal concepts that are appropriate to the mission.

Taking advantage of explosive changes in technology requires the means by which this exploitation can occur. Last year, a CNO Executive Panel (CEP) task force recommended that the Navy initiate a formal process to conceive, evaluate and rapidly exploit major opportunities for innovation in naval warfare. The aim of this process is to explore new and innovative concepts, operations, organizations and emerging technologies that could provide major advantages to U.S. and combined forces in addressing future warfare needs. The CNO founded a strong and independent concept generation organization by engaging personnel and resources from the Strategic Studies Group, the CNO Executive Panel, Naval War College, Naval Doctrine Command, Naval Postgraduate School, and the Office of Naval Research.

The Commandant's Warfighting Laboratory (CWL) was recently established as the centerpiece of operational reform for the Marine Corps. The mission of CWL is to ensure that emerging technologies, with application for both the naval services and the individual Marine, are brought into service expeditiously and effectively. This laboratory will be the cradle and test bed for the development of new warfighting concepts and the integration of new technologies.

Sea Dragon is the method through which the Marine Corps will seek to shape naval expeditionary warfare for the next century. Sea Dragon is a process through which innovative organizational concepts and operational techniques, incorporating the full range of available technologies, are subjected to rigorous testing and validation. This effort has far reaching potential for both the Navy and Marine Corps. Working together, we will ensure that we are prepared for the 21st Century.

Training Innovation

U.S. naval forces are the best trained in the world. To maintain that advantage in the current fiscal environment of reduced personnel and force structure, we are adopting innovative ways of applying new technology into naval training programs.

Embedded training systems with advanced tactical simulation capability are being developed to allow personnel to safely and inexpensively train on their own equipment at sea and in port as part of individual and unit training. New technologies will also allow reduced ammunition expenditures through simulators such as the Indoor Simulated Marksmanship Trainer.

Automated electronic classrooms, interactive courseware and computer based training are making available from personal computers an infinite network of experts, electronic textbooks, case studies and technical manuals. Early results show that these new technologies significantly reduce training time and improve test scores. Accordingly, they are being expanded to include specialized skill training courses with large numbers of students.

"Distance learning" through video teleconferencing provides training to deployed forces and eliminates travel costs associated with shore training at distant locations.

Fruits of Modeling and Simulation

Major strides have been made in the area of modeling and simulation (M&S). Both the Navy and Marine Corps management offices are actively promoting the evolution and application of advanced computing hardware and software development in operational planning and execution support, requirements assessment analysis and training functions. In accordance with the 1995 Defense Planning Guidance, the Department is pursuing simulations, simulators and advanced training devices and technologies to enhance the acquisition process and increase operational and training effectiveness.

The Joint Simulation System (JSIMS) will incorporate all the missions of all the Services within a common framework that supports live, virtual and constructive M&S capabilities and will eventually include acquisition support and analysis. The Naval Simulation System is working to provide simulation support for operational planning, exercises and war games as well as acquisition assessment and force structure analysis. The Navy's Battle Force Tactical Training (BFTT) system, which will achieve initial operational capability in fiscal year 1997, will link more than 140 ships and 10 shore sites with a simulation capability, facilitating training from the individual to the joint task force level. Additionally, BFTT technology will provide the basis for the maritime component of JSIMS.

The Marine Corps is an active participant in joint and DOD development and implementation of M&S technologies that will enhance training (JSIMS), operational readiness (mission planning devices), acquisition (Joint Warfare System) and analysis (Joint M&S System). The Marine Corps Emerald series of M&S demonstrations (for instrumentation, distributed learning, simulation networking and analytical model development) is providing a proof of concept of viable, emerging technologies. These real-time demonstrations are providing the warfighter with a hands-on sampling of the capabilities being developed. The Emerald demonstrations complement the development of programmatic initiatives that identify the investment required to implement the Marine Corps future joint and interoperable M&S vision.

A particularly promising use of modeling and simulation is in acquisition. The Department is expanding the use of M&S early in the development of new technology as a partial substitute for the "hard" prototypes of the past. Use of M&S holds the promise of revolutionizing the DoN acquisition process through distributed, simulation based acquisition to produce superior systems while reducing cost and cycle time.

New Developments

The Navy and Marine Corps are pursuing new developments that are not only evolutionary but revolutionary. New technology has received the most attention, but development of innovative concepts for using this technology is equally important. This applies not only to operations but to training and preparing forces as well.

Copernicus Forward.—The Navy and Marine Corps are expanding the Copernicus blueprint by developing a true sensor-to-shooter architecture. As a modern command and control (C^2) capability, it provides the naval foundation for joint and combined interoperability. Copernicus Forward extends the C^4I architecture to include all mobile and fixed forces in the battlespace. It focuses on four areas:

—The connectivity embodied in the Joint Maritime Communications (JMCOMS) initiative which includes dynamic bandwidth management.
—The common tactical picture provided by the Joint Maritime Command Information System (JMCIS).
—The sensor-to-shooter capability resulting from C^4I and combat direction system integration.
—Information Warfare where the information system itself becomes a powerful weapon for use in future warfare.

The Copernicus Forward architecture is a continually evolving system that adapts new technologies and capabilities to fully support the warfighter.

Arsenal Ship.—The Navy and Marine Corps, in coordination with the Army and the Air Force, are exploring new ways to maximize naval firepower from the sea to support and impact the land campaign to a much greater degree than ever before. Born out of the theater commander's requirement for greater on-scene strike capability, the arsenal ship concept focuses on large numbers of affordable, precision weapons, in a platform with drastically reduced manning requirements and overall costs. The arsenal ship is envisioned to be a large, mobile magazine with a simplified receive-only combat system capable of delivering on demand any of the vertical launched weapons in the DOD inventory.

Cooperative Engagement Capability (CEC).—The increased complexity of emerging threats in the air defense arena make it necessary to link all available sea, air and land based sensors with all potential firing platforms. CEC harnesses the technology that allows each firing unit to make use of real time sensor data from the most capable available systems. CEC was operationally tested in 1995. In one test during the deployment of the USS *Eisenhower* (CVN 69) battlegroup, the CEC air picture, composed of real world composite air tracks and synthetic ballistic missile tracks, was relayed to an Army Patriot site 800 miles away. The Army and Air Force are beginning comprehensive studies on the potential applications of CEC in their systems. In 1996, all four services will participate in an exercise in which CEC will allow the first ever engagement of an air target beyond the firing unit's radar horizon.

Chemical/Biological Incident Response Force.—Responding to the increasing threat of future biological or chemical incidents, the Marine Corps is developing a capability to meet this threat. Using the latest technology in chemical/biological detection and decontamination, this new force concept is being designed to evolve as future threats in this area are more clearly understood and new systems are developed. The Commandant's Warfighting Lab will soon announce the initial operating capability date for the first Chemical/Biological Incident Response Force.

Surface Combatant of the 21st Century (SC–21).—The Surface Combatant Force Level and Force Architecture Studies are providing the analytical input to the ongoing SC–21 cost and operation effectiveness analysis (COEA). This COEA is examining mission requirements and alternative approaches to replacing ships nearing the end of their service lives in the 21st Century. Designed to be highly survivable with full joint interoperability, SC–21 will support the land campaign as well as perform the traditional roles of surface combatants. Initial indications point to a family of ships with time phased introduction of emerging technologies and tailored capabilities. Integrated information distribution through an open computer architecture combined with advanced equipment modularity and automation will greatly reduce manpower and life cycle costs.

EFFICIENCY

Efficiency Through Innovation

In conjunction with the National Performance Review (NPR), recommendations from the Commission on Roles and Missions of the Armed Forces and other related activities, the Department of the Navy continues to pursue innovative ideas to increase our efficiency. We are learning a great deal from private industry and have undertaken several major initiatives, including delegation of waiver authority, designation of reinvention laboratories, reduction of cycle time, acquisition reform and initial implementation of the Government Performance and Results Act.

The waiver authority delegation initiative eliminates unnecessary and burdensome restrictions on operational commands. Capping a year of research, test and evaluation, all DoN Reinvention Laboratories (17 Navy and 10 Marine Corps installations and commands) are now authorized to waive policies and regulations standing in the way of innovation, breakthroughs, and successes.

The cycle-time reduction initiative is creating shorter turn around times on all processes, thereby contributing to improved readiness. As part of NPR streamlining initiatives, the Department identified 25 candidate areas within which to create more efficient cycle times. These areas cover the budget process, acquisition management, test and evaluation, maintenance, training and general administration.

Acquisition reform produces significant cost reduction in the procurement of major weapon systems. A special Acquisition Reform Office was established within the Department of the Navy to help focus on structuring executable programs in the face of declining resources. With an anticipated three year charter, its intent is to encourage and facilitate exemplary business practices in such areas as joint government/commercial ventures, procurement streamlining, and acquisition work-force training.

Cultural change, training and education are keys to the sustained improvement and long term success of acquisition reform. To achieve these aims, the Department has established an acquisition professional community of highly skilled Navy, Marine Corps and civilian personnel. The high quality of our career personnel is maintained through enhanced certification requirements, up-to-date training, increased educational opportunities and an improved intern program.

Looking inward for additional efficiencies, the Marine Corps created an "Enterprise Model" of its key activities, functions and processes to improve the interfaces between Headquarters, the Marine Corps Combat Development Command and the Marine Corps Systems Command, as well as external interfaces between the Marine Corps and other Services and agencies. Using the Business Process Reengineering Methodology under the DOD Corporate Information Management Initiative, these efforts are achieving efficiencies through the realignment of naval activities as directed or recommended by the National Performance Review/Defense Performance Review, Base Realignment and Closure Commission and the Commission on Roles and Missions of the Aremd Forces. The result will be a Marine Corps positioned to meet the many challenges of the 21st Century.

All these initiatives seek to reengineer key management processes, so the nation will receive the best return for invested defense dollars. The Department's overall objective is to provide high quality, cost effective, combat ready forces.

Operational Fleet Reorganization

The dramatic emphasis on operational reorganization in 1995 has brought to a peak the efficiency of time spent at sea and eliminated non-mission essential training. These initiatives reduced the amount of time our men and women spend away from homeport between deployments and enhanced our ability to meet emerging operational commitments worldwide.

Last year, the Navy recommissioned the U.S. Fifth Fleet in the Southwest Asia area of responsibility. The recommissioning symbolized strong U.S. commitment to the region and enhanced interoperability with local naval forces. Implementation required no additional personnel. The existing staff assigned to Commander, U.S. Naval Forces Central Command also will serve as the Fifth Fleet staff.

To make more efficient use of smaller naval forces and enhance presence in the Western Hemisphere, the Commander-in-Chief Atlantic Fleet established the Western Hemisphere Group. This force will focus on naval operations throughout the Caribbean Sea and South America. It will fulfill regional presence requirements, including UNITAS, Caribbean basin security, bilateral/multilateral training, cooperation with Latin American countries, humanitarian contingencies, and counter-narcotic operations. Establishing the Western Hemisphere Group will reduce costs and personnel operating tempo by allowing the rest of the fleet to focus specifically on operations in the Mediterranean, Western Pacific and Indian Ocean.

During 1995, all Atlantic and Pacific Fleet combatants were organized into twelve core battle groups, each comprised of one carrier, two cruisers, or one of nine Atlantic or eight Pacific destroyer squadrons. After joining their core battle groups in the intermediate predeployment training phase, the destroyer squadrons will remain with them throughout the deployment cycle. Training, operating and deploying together will ensure a fully integrated fighting unit.

Acquisition Reform Success Stories

The Department of the Navy is committed to maintaining U.S. military superiority at reduced cost, and with increased responsiveness to the operators. The Navy Acquisition Reform program, led by the Navy Acquisition Reform Senior Oversight Council, is achieving that goal. The Navy's forward looking strategy explores applications of innovative practices to accomplish cost and time reductions in the defense acquisition process and works to attain a culture that will ensure that these practices flourish.

The Navy's bold approach is already accruing results. The New Attack Submarine Open Systems Architecture (OSA) Demonstration Project promoted early industrial partnership and involvement in Commercial Off-the-Shelf/OSA. This program received the 1994 Buying Our Spares Smart Award as the top federal government project in planning and migration to reduced development time and procurement cost. Another example is the F/A–18E/F Super Hornet Program which, as a result of acquisition reforms, rolled out the first aircraft in September, 1995: ahead of schedule under weight and on budget.

In fiscal year 1995 the first fruits were seen from an acquisition strategy adopted in 1993 for Marine Air-Ground Task Force (MAGTF) C^4I systems. The Marine Corps Tactical System Support Activity created the first version of the MAGTF C^4I Software Baseline (MCSB). This software provides the functionality required to support the three key Marine Corps C^4I programs: Tactical Combat Operations, Intelligence Analysis System, and Improved Direct Air Support System.

The MCSB derives most of its capabilities from the Global Command and Control System (GCCS) Common Operating Environment (COE) and reduces software lines of code being supporting by the Marine Corps by 83 percent. This will achieve the goal of seamless interoperability with joint forces in any theater of operations by having the identical software. A management structure has been established to manage acquisition of MAGTF C^4I systems as they migrate to the GCCS COE. All MAGTF C^4I acquisition programs under cognizance of the Marine Corps Systems Command are now consolidated under the Director C^4I. This consolidated approach coupled with defining technical, operational and system architecture as part of the requirements definition process, will simplify coordination and greatly improve the acquisition process.

Challenge Athena is another acquisition success story under the Copernicus aegis. The system merges commercial off-the-shelf communication technologies into a communications architecture never before employed at sea. Initially installed in the USS *George Washington* (CVN 73), it permits real-time telephone communications for battle group leaders and can save thousands of dollars in medical evacuation costs through data transfer and video conferencing between the ship's medical personnel and medical facilities ashore to provide timely, accurate diagnoses. Perhaps most important, is the improved morale of crewmembers who now have the means of making inexpensive personal calls while at sea. Challenge Athena provides full duplex commercial satellite throughput to warfighters afloat. It also allows shipboard communicators to allocate bandwidth and channel assignments to fit mission priorities.

Under the Navy's AN/ARC–210(V) radio program, the acquisition strategy was restructured to resemble more closely a commercial business based procurement. This strategy allowed the Navy to reduce system cost by 18 percent while managing the risk far more effectively through the use of detailed and highly specific performance based contract and warranty provisions. The AN/SQS–53A EC–16, which replaced the AN/SQS–53A sonar subsystems with rugged modern commercial electronics, provided major savings. This aggressive program will reduce life cycle cost by more than $100 million while also reducing system weight, man-year requirements, spares requirements and operational downtime. This program received Vice President Gore's 1995 “Heroes of Reinvention Hammer Award.”

The Navy's Trident II (D–5) missile program also benefited significantly from acquisition reform measures. Under the Trident II Propulsion Consolidation Program, successfully undertaken in 1995, production of D–5 missile first, second, and third stage boost motors was consolidated from two suppliers to one. Without the savings generated by this initiative, the Navy's ability to procure an affordable missile at unprecedented low annual rates—without compromising product performance, reliability or safety—would have been severely inhibited.

The Smart Ship Project is examining reduced manning initiatives for application on existing and future ships. By combining available technology, such as “gold disk” electronic troubleshooting, with changes to shipboard manning policies, the project will reduce the workload to allow a smaller crew size. The Smart Ship Project is reviewing and selecting proposals from industry, academia and government which will be tested aboard the Aegis-equipped cruiser USS *Yorktown* (CG 48). The lessons learned from the tests can then be applied to current and future ships to reduce ship life cycle costs.

Streamlining Shore Infrastructure

Base Realignment and Closure Strategy

With the Congressional approval of Base Realignment and Closure (BRAC–95), we now can focus all our BRAC-related efforts on implementing the plan. BRAC–95 identified 36 bases/activities for closure and 6 for realignment, bringing the grand total for all four rounds of BRAC to 135 bases/activities for closure and 44 for realignment. To date, 79 closure/realignment actions have been completed. The

Department of the Navy is redoubling efforts to implement BRAC actions and experience the savings that will become available through the remaining closures and realignments. The prompt and efficient closure of excess shore infrastructure will generate savings of approximately $10.2 billion over the next six years that can be applied to modernizing naval forces and supporting infrastructure. Investment now in these efforts is critical to ensure the savings from BRAC implementation are realized quickly and the remaining infrastructure is correctly aligned with future force structure.

Toward that end, $2.5 billion was appropriated in fiscal year 1996 and $1.5 billion is requested in fiscal year 1997. Fiscal year 1996 will be the largest and most costly year for BRAC implementation, with costs projected to decline progressively through fiscal year 2001 when all BRAC actions must be completed. Efforts through fiscal year 1996 are expected to yield $2 billion in savings in fiscal year 1997 alone, and build through the end of the century. Repetition of the earlier experience of underfunded appropriations in support of BRAC will hinder our ability to execute an aggressive program and will have the compounding effect of reducing anticipated savings and creating a bow wave of future BRAC implementation costs.

As a key part of the base closure process, the Department intends to ensure a smooth and efficient turnover of the facilities to the communities that hosted forces for so many years. We are sensitive to the varying needs and desires of those communities and only by working with them individually can we ensure that we meet their expectations. Building on base closure successes at locations such as Mobile, Alabama, and Glenview, Illinois, will ensure that the conversion and redevelopment of bases is accomplished with the host communities in mind.

Post Base Closure Strategy

Beyond the significant savings to be attained through closure and realignment of bases, additional efficiencies are targeted in operation of the remaining bases. The key to this is the comprehensive integration of shore requirements with new business practices and improved organizational approaches. Shore infrastructure requirements have been carefully analyzed to ensure that remaining shore capacity is used to best support current and projected force structure.

The Navy's approach to shore management has been realigned in a manner similar to project management for platforms and weapon systems. Life cycle costs and alternative methods of service delivery are considered in every infrastructure plan. Private sector provision of common support services ashore is the preferred alternative, with investment in new facilities and upgrading of aging infrastructure reserved for those facilities determined to be critical to the direct support of our ships, aircraft, organizations and personnel.

Specific initiatives to implement this strategy for shore infrastructure after base closures include:

—Streamlining Echelon II installation management responsibilities by reducing overhead

—Organizational restructuring for both contract and in-house common support services on a regional basis in areas of fleet concentrations such as San Diego, California; Norfolk, Virginia; and Jacksonville, Florida

—Consolidating or eliminating excess and redundant capacity for functions being performed by multiple tenant commands in one geographic region

—Aggressive pursuit of public and private partnerships and other innovative solutions to provide services formerly provided in-house.

Regional Maintenance Strategy

The Navy is streamlining its ashore maintenance infrastructure through a combination of process improvement and infrastructure reduction and consolidation. Announced in March 1994, this initiative is intended to reduce capacity and capability while protecting responsiveness. It will integrate maintenance with supply and reinforce positive technical control. Advances in automated information systems, the relatively low price of transportation and the high price of labor make this strategy both desirable and possible.

In keeping with BRAC, the Navy is making best use of its repair shops and work force (military and civilian) by sizing its repair activities to keep a level work load, and sending overflow work to the private sector. Consolidations are occurring across platform programs and intermediate level (versus depot-level) funding constraints are being reduced wherever it makes sense.

Process improvement savings are expected from reduced rework, elimination of redundant planning and engineering at different locations, continued use of the Reserve force, and reduction of Defense Business Operating Fund losses. In anticipation of the these savings, $1.28 billion was removed from Navy's maintenance accounts, across the FYDP, starting with fiscal year 1995. Additional savings generated as a result of continued process improvements will be available for force modernization.

Regional maintenance is being accomplished in three parts:

—Parts I and II commenced 1 October 1995, with emphasis on integrating intermediate and depot level maintenance and full regionalizing of maintenance in the Mid-Atlantic and Northwest regions (our most demanding cases). The other six regions will follow.

—Part III will establish an integrated approach to maintenance to connect the customer with a single responsible, and accessible provider. Completion of this initiative is expected to occur after the turn of the century.

Environmental Stewardship

The Department has begun a comprehensive review of the environmental planning process to ensure that environmental protection considerations are analyzed early in the planning process for military operations and the acquisition process for weapons, platforms, and facilities. Pollution prevention is a key element for both shore installations and vessels. The Navy and Marine Corps have institutionalized a major hazardous materials control program at shore installations that will minimize and carefully control the use of hazardous materials. After a successful prototyping in 1993, this program has been targeted for 175 shore installations by the end of 1998. Lessons learned are being shared through a pollution prevention opportunities guide.

Last year, we introduced the concept of the environmentally sound ship. This year, the concept moved a step closer to reality with the passage of an amendment to the Clean Water Act which allows the Navy to develop cost-effective, practical technologies for controlling waste water discharges from vessels. Working closely with federal agencies, States, Congress, and marine-protection interest groups, we secured the authorization of uniform national discharge standards for military vessels. Over the next several years, the Navy plans to work with these same stockholders to identify vessel discharges warranting control and then establish practicable discharge guidelines through the regulatory process.

The Navy is presently analyzing alternatives to manage solid waste effectively. As required by law the Navy will report to Congress on the status of compliance with the Act to Prevent Pollution from Ships. The combination of plans for liquid discharges and solid waste management, along with the ongoing shipboard hazardous materials control program, will establish the U.S. Navy as a leader in pollution prevention among the world's navies.

PROGRAMS

Programming for the Force

The Department of the Navy budget reflects the priorities established in the Defense Planning Guidance. The emphasis in this second year of the fiscal year 1996/97 Biennial Budget remains unchanged from the first: Preservation of near-term readiness; protection of quality of life enhancements; commitment to increased efficiency in infrastructure and other resources; and continued emphasis on near-term modernization and the research, development, and acquisition of future platforms and weapon systems.

Program Summaries

Current programs and those in development will give the Navy-Marine Corps team the right mix of capabilities to meet today's national security requirements, while adapting to the changing security environment of tomorrow.

Aircraft Carriers.—Twelve aircraft carriers form the centerpiece of naval global forward presence, crisis response, warfighting, and deterrence capability. Going beyond their power projection role, they also serve as joint command platforms in the worldwide command-and-control network. The USS *John C. Stennis* (CVN 74) was commissioned in December 1995 and the USS *America* (CV 66) will be transitioned to the inactive fleet this year. Project 78, the development effort for the future carrier, is examining projected requirements for sea-based tactical aviation platforms and the aircraft carrier that will support those platforms well into the 21st Century. The changing world has increased reliance on the aircraft carrier, which continues to prove itself as the perfect match for the nation's political and military needs. No other naval platform in the world is as survivable while simultaneously possessing the ability to sustain around-the-clock high tempo manned aircraft operations.

F/A–18E/F Super Hornet.—The F/A–18 Hornet is the backbone of naval aviation strike warfare. This year's budget request will include first-year production funding for the procurement of 12 F/A–18E/F aircraft. The successful first flight occurred in November 1995 and the program is on schedule and on cost. Procurement of the first 12 low rate initial production aircraft will begin the orderly transition of the F/A–18 inventory to this improved strike fighter aircraft. Building upon the proven technology of earlier model F/A–18 aircraft, the F/A–18E/F will have greater range, payload flexibility, an improved capability of returning to the carrier with unexpended ordnance, room for avionics growth, and enhanced survivability features. It will increase the ability to conduct night strike warfare, close air support, fighter escort, air interdiction, and fleet air defense. The F/A–18E/F will constitute the majority of strike fighter assets on aircraft carriers and will complement future aircraft that evolve from the Joint Advanced Strike Technology (JAST) concept. In order to enhance strike fighter capability further, this year's budget also contains continued funding for warfighting improvements to our existing F/A–18C/D aircraft.

MV–22 Osprey.—The MV–22 aircraft remains the Marine Corps' highest aviation acquisition priority and is key to successfully implementing our Operational Maneuver From the Sea concept—a concept that finally links maneuver at sea with maneuver ashore. The acquisition of this medium-lift tiltrotor, vertical/short takeoff and landing (VSTOL) aircraft represents a major improvement in our ability to project forces from over the horizon toward inland objectives and maneuver ashore. The MV–22 will give Marine air-ground task forces the ability to fly significantly farther and faster with a greater payload than the aging fleet of medium-lift CH–46 helicopters. The MV–22's ability to carry 24 combat-loaded Marines at a cruising speed of 240 knots will provide the operational capability to exploit gaps in enemy defenses and rapidly insert assault forces, while enhancing security and survivability. This combat multiplier nearly triples the present-day battlespace and will give commanders the tactical flexibility to respond, to adapt to, and defeat a wide range of threats, while minimizing friendly casualties. In addition, the MV–22 is completely self-deployable to any area in the world, saving critical strategic airlift and sealift. In fiscal year 1997 low rate production will begin on the first lot for receipt by the Marine Corps. With an initial operating capability of 2001, the technical innovation of the MV–22 will constitute a revolutionary leap in our ability to maintain battlefield dominance well into the 21st century.

AV–8B Remanufacture.—The remanufacture of the AV–8B Day Attack Harrier to the AV–8B Radar/Night Attack Harrier configuration will increase the multimission capabilities of this proven aircraft in the role of offensive air support. This program greatly increases the Harrier's night, reduced-visibility, and poor-weather capabilities for close air support, and also enhances the air-defense capability of amphibious ready groups. Additionally, the AV–8B remanufacturing program will extend the aircraft's life by 6,000 hours. Still the only tactical aircraft capable of operating from small flight decks at sea or unimproved areas on land, the AV–8B will be capable of delivering all future smart weapons, such as Joint Direct Attack Munition and the Joint Stand Off Weapon, in support of ground forces. This program also improves the aircraft's combat utility and survivability through standardized configuration and safety enhancements. This AV–8B program will modernize 72 aircraft at 77 percent of a new aircraft's cost. The first flight was successfully conducted in November 1995. Delivery of the first three remanufactured aircraft will occur in fiscal year 1996.

Joint Strike Fighter (JSF).—The Joint Strike Fighter program serves as the Department of Defense's focal point for defining future strike aircraft weapon systems for the Navy, Marine Corps, and Air Force. The key focus of the program is affordability—reducing the life-cycle cost of follow-on strike aircraft development and production programs. Were the Services to pursue development of the next generation strike fighter through separate programs, the cost would be approximately $27 billion; a joint approach is expected to cost about $17 billion, a savings of $10 billion to the taxpayer. Further savings are anticipated through participation by the United Kingdom's Royal Navy as well.

F–14 Upgrade.—Continuing to improve carrier airwing multimission capabilities, the Navy will upgrade the F–14 Tomcat by procuring a limited number of LANTIRN laser targeting systems that will be used to outfit forward deployed units, and by incorporating provisions for system installation in 212 F–14 air-superiority fighters. All models have been cleared to release basic MK–80 series free fall bombs as well as laser guided equivalents. The emerging strike role was first demonstrated during 1995 NATO operations in Bosnia, when Tomcats from VF–41 successfully destroyed an ammunition dump using GBU–16's (1,000 pound laser guided bombs), with F/A–18's providing target lasing. With a LANTIRN initial operating capability in June 1996, the Navy will rapidly increase the total number of multi-mission, precision strike capable aircraft in today's air wings. Additionally, the F–14B Upgrade program will provide the fleet with enhanced survivability and digital improvements in 81 aircraft. The F–14B, along with the F–14D, will provide the Navy with flexibility for additional warfare capabilities in the littorals until replaced by the F/A–18E/F or the JAST strike-fighter, or both.

EA–6B Prowler.—With the scheduled retirement of the U.S. Air Force EF–111A Raven jammer, the EA–6B Prowler will assume the role as the Department of Defense's primary provider of standoff radar jamming. In addition to radar jamming, the Prowler will support joint operations by providing communications jamming capability and through employment of the high-speed anti-radiation missile (HARM). Supporting the EA–6B's expanding role in joint operations requires all 127 aircraft in the inventory and the re-establishment of two squadrons in fiscal year 1996 and fiscal year 1997. Navy and Marine Corps EA–6B squadrons will be deployed overseas at U.S. and coalition air bases to support U.S. Air Force operations with Joint Suppression of Enemy Air Defense capability. These operations are in addition to the continuing EA–6B support to Navy carrier air wings and Marine air-ground task forces. Emphasis in the EA–6B program is on maintaining aircraft safety and inventory levels, achieving a standardized configuration and improving warfighting capability.

SH–60R/Multimission Helicopter Remanufacture.—The multimission helicopter upgrade (SH–60R) is a remanufacture program which will include service life extension improvements to 170 SH–60B and 18 SH–60F helicopters. Essential to future tactical rotary-wing effectiveness in attaining littoral battlespace dominance, the light airborne multi-purpose system (LAMPS) combines the SH–60R helicopter and a computer-integrated shipboard system to extend the range and overall capabilities of surface combatants for antisurface and antisubmarine warfare, surface surveillance and targeting of hostile threats. This upgrade brings advances in active sonars and acoustic processing, radar detection and imaging, expanded surveillance, weapons flexibility and command-and-control capabilities to a joint expeditionary force or battle group. With an initial operating capability of 2001, the SH–60R will be the Navy's centerpiece of future tactical rotary-wing aviation. The integrated helicopter sensors, and a real-time exchange of sensor and tactical data with the host surface combatant, bring a new dimension in battlespace control to the naval commander.

UH–1N and AH–1W Four-Bladed Upgrade (4BN/4BW.—The Marine Corps is examining alternatives for upgrading or replacing its aging fleet of utility and attack helicopters. Alternatives include the addition of improved four-bladed lift capabilities to both helicopter fleets, the incorporation of an improved targeting system and an integrated weapons station on the AH–1W and various replacement options. The program will undergo an acquisition milestone review in late fiscal year 1996, at which time a decision on proceeding into demonstration/validation will be made.

P–3C Orion.—The P–3C sustained readiness program and out-year service life extension program will extend the operational service life and fatigue life of existing airframes to approximately 48 years, thereby delaying the requirement for delivery of a follow-on production aircraft until 2015. The antisurface warfare improvement program enhances the aircraft's ability to perform both autonomous and joint battle group missions in the littorals. Improvements will allow the P–3C to collect, correlate, and confirm tactical data and transmit information and imagery to the joint task force commander in near-real time. Both the active and reserve P–3C fleet are converted to a common avionics force that consolidates maintenance, improves training efficiency, reduces long term logistic support costs and maximizes Reserve forces participation.

Air-to-Ground Weapon Programs.—The three most significant joint air-to-ground weapon development initiatives are the Joint Standoff Weapon (JSOW), Joint Direct Attack Munitions (JDAM), and Standoff Land Attack Missile Expanded Response (SLAM-ER). JSOW is a Navy-led joint Navy/Air Force program for a family of weapons using a common vehicle. JSOW will provide air-to-ground standoff attack capability against a broad target set during day, night and adverse weather conditions and will replace a variety of weapons in the current inventory. JDAM, an Air Force-led program, will develop adverse weather guidance kits and multi-function fusing for general purpose bombs. Recent cancellation of the Tri-Service Standoff Attack Missile (TSSAM) program placed an urgent requirement on the SLAM-ER program to meet the Department's near term requirements. SLAM-ER modifies the original SLAM, nearly doubles its range, increases penetration of hardened targets, and increases data link control range and missile survivability. It will meet the Department's near-term requirement for a Standoff Outside Area Defenses (SOAD) precision air-to-ground weapon. The Joint Air-To-Surface Standoff Missile (JASSM) is a new start program that will meet the Air Force's need for a SOAD weapon in the near term. A preplanned product improvement (P^3I) version of the weapon will meet the Navy's need for a long term follow-on SLAM-ER system.

Air-to-Air Weapon Programs.—The AIM–9X (Sidewinder Upgrade) and the AIM–120 (Advanced Medium Range Air-to-Air Missile) continue to be the Navy's foremost air-to-air weapons. The Navy and the Air Force continue to work closely together on both programs. The P^{3}I version of the AIM–120 and the Navy-led AIM–9X provide an improved seeker and a more maneuverable airframe. Both are being defined in a total systems approach to avoid unnecessary duplication in capability and to assist in overall affordability of air-to-air weapons.

Expeditionary Air Support.—The Marine Corps maintains the unique capability to establish and operate tactical airfields to project power ashore. Expeditionary airfields are the natural, land-based extensions of sea-based operations. The three basic components of EAF 2000 are: enough AM–2 aluminum matting for construction of a 3,850 by 72 foot runway, with parking areas for 75 tactical aircraft, (2) expeditionary arresting gear for tailhook configured aircraft; and (3) optical landing aids or airfield lighting. The Marine Corps is vigorously pursuing programs to reduce the logistical footprint and the time required to set up an expeditionary airfield. A research, development, test and evaluation effort is underway to reduce the AM–2 matting's weight and cubic dimension by 50 percent, while reducing installation time by one-third. An expeditionary aircraft arresting gear that will be faster to install and will increase aircraft landing parameters also is being developed. The minimum operating strip lighting system has been programmed to reduce the lighting installation time from four days to one hour while providing compatible Night Vision Goggle/Night Vision Device systems.

Amphibious Lift.—Naval amphibious forces provide the most flexible and adaptive combined arms crisis response capability today and remain the nation's only self-sustainable forcible entry force. The Department of the Navy's current modernization plan will provide amphibious lift for 2.5 Marine expeditionary brigade equivalents, in accordance with Defense Planning Guidance. The future amphibious force is being shaped in the correct number and types of ships that will also allow the formation of twelve amphibious ready groups (ARG's) to meet our forward-presence requirements. Completion of this plan is vital to maintaining our warfighting and forward presence capabilities.

The Department is modernizing and tailoring its amphibious fleet to provide over-the-horizon launch platforms for the MV–22 aircraft, the advanced amphibious assault vehicle (AAAV), and the already proven landing craft air cushion (LCAC). In addition to substantial qualitative advances, this acquisition strategy also addresses the quantitative goal of 2.5 MEB lift equivalents. Amphibious lift is defined by five parameters: vehicle square foot stowage capacity, cubic cargo capacity, troop capacity, VTOL capacity, and LCAC capacity. The current active amphibious fleet meets or exceeds the 2.5 MEB goal in all areas except vehicle stowage capacity. The vehicle lift shortfall is being met through a combination of active and Ready Reserve Fleet assets. We believe this reliance on tank landing ships (LST's) and attack cargo ships (LKA's) in the Naval and Military Sealift Command Reserve Force to be an acceptable short-term risk. The shortfall in vehicle lift will be corrected with the acquisition of the new LPD–17 class of ships that will incorporate improved command-and-control capabilities allowing them to operate independently with enhanced survivability features including self-defense against future cruise missiles. The first ship is programmed to begin construction in fiscal year 1996 with first delivery in fiscal year 2002. A critical link in the amphibious lift program, the LPD–17 class, will replace the aging LPD–4, LKA, LST, and LSD–36 classes of ships. Once construction of the twelve LPD–17's is complete, the goal of forming twelve modern amphibious ready groups can be achieved. The seventh LHD will be the twelfth ARG centerpiece and will start construction in fiscal year 1996. Delivery of the final two LSD 49 class ships will be made in the next three years.

Advanced Amphibious Assault Vehicle (AAAV).—Currently in the demonstration/validation phase of the acquisition process, this is the Marine Corps number one ground program. When procured, the AAAV will replace the 30–40 year old AAV7A1 inventory, providing a quantum leap in maneuverability, speed, firepower and survivability. With its ability to maintain high speeds during waterborne assaults, the AAAV will improve forcible entry capability while minimizing exposure to enemy fires. Once ashore, the AAAV will provide Marine ground forces superior tactical mobility and the speed and maneuverability to integrate with tank forces. For the first time, Marines will be able to directly link maneuver of ships with the landing force maneuver ashore, fully complementing the MV–22's capabilities.

Arleigh Burke (DDG–51) Class Destroyer.—Joint strike capability is significantly strengthened by the introduction of the newest version of the Arleigh Burke-class guided missile destroyer. This state-of-the-art warship is critical to the Navy's modernization plan. Continued acquisition is needed to support surface combatant force levels and multimission capabilities essential in littoral warfare. The DDG–51 operates both offensively and defensively in multi-threat environments. It plays an integral part in power projection and strike missions through its land attack cruise missile capability. It also provides battlespace dominance and area defense capability for carrier battle groups, surface action groups, amphibious ready groups and joint expeditionary forces. In order to keep pace with advancing technologies and stay ahead of emerging threats, the Navy constructs Aegis destroyers in "flights," to introduce improvements in combat capability continuously. Of the 21 planned Flight I Aegis destroyers, 13 are in commission. The remaining eight Flight I's, seven Flight II's, and four Flight IIA's are under contract. The Aegis destroyers requested this year will continue to incorporate Flight IIA warfighting improvements, including improved surface-to-air missiles (SM2 Block IV and Evolved Sea Sparrow Missile), embarked helicopters and the Battle Force Tactical Trainer. Future ships will include other essential improvements such as AN/SPY–1D(V) EDM–4B radar upgrade, Cooperative Engagement Capability and Theater Ballistic Missile Defense capability.

Area Defense.—Area defense of carrier battle groups, surface action groups, amphibious readiness groups, and joint expeditionary forces remains a preeminent warfighting requirement for our antiaircraft warfare (AAW) surface ships. Future ships will include essential capability improvements to the SPY–1 radar, Joint Tactical Information Data System (JTIDS) and Cooperative Engagement Capability (CEC) in order to pace advancing technologies and to remain ahead of emerging threats. SPY radar improvements will provide for better surveillance, detection, tracking and engagement support against the demanding supersonic low altitude cruise missile, theater ballistic missiles and electronic countermeasure (ECM) environment. JTIDS will provide better data link connectivity with Navy and other services while CEC will provide sensor netting with off-board Navy and joint sensors, allowing better situational awareness, battlespace management and weapons employment.

Common Missile Development/Standard Missile.—The Navy is continuing to build on the proven Standard missile family by adding additional capability to counter existing and emerging threats. With over 70 countries now capable of employing antiship cruise missiles, and with the addition of the theater ballistic missile defense challenge, the Navy is capitalizing on previous fiscal investments in the Standard missile. The Navy plans to evolve this common missile base to counter specific threats, and to improve these missiles to perform multiple missions, thereby preserving combat flexibility and magazine load out space. Presently two new block upgrades are progressing toward production. The SM–2 Block IV will complement SM–2 medium range missiles aboard Aegis cruisers and destroyers equipped with the vertical launching system. Following successful completion of a series of four SM–2 Block IIIB flight tests, approval was granted to proceed to a Navy program decision meeting in fiscal year 1996. The SM–2 IIIB missile incorporates a dual mode seeker for improved countermeasure resistance and will also be deployed aboard Aegis cruisers and destroyers. A new version, the SM–2 Block IVA, will build on the Block IV while spanning two mission areas, providing cruise missile defense and area theater ballistic missile defense.

Theater Ballistic Missile Defense (TBMD).—Sea-based theater ballistic missile defense is considered essential to protect expeditionary, forward-deployed elements of our Armed Forces, and to support the defense of friendly forces and threatened coalition allies, including population centers. In response to the Joint Requirements Oversight Council Theater Missile Defense Mission Needs Statement, and to meet an urgent national requirement, the Navy is developing a sea-based TBMD. Naval Area TBMD, to be fielded in fiscal year 1998, is critical to support littoral warfare. It will provide the nation's only forcible entry capability in the face of TBM attack. Naval Theater-Wide TBMD is equally important to provide defense-in-depth over an entire theater of operations. Advantages of naval TBMD include the ability to operate independently of constraints, with no need for airlift in the critical early days of conflict, high survivability, rapid relocation capability, self sustainability, and dramatic cost effectiveness by leveraging existing capabilities and engineering base. Both the area and theater-wide programs, as currently designed, comply with the ABM treaty.

Tomahawk Baseline Improvement Program (TBIP).—The Tomahawk land attack missile (TLAM) provides Navy surface combatants and attack submarines with the unique capability of conducting long-range precision strikes from the sea. The fiscal year 1997 budget request provides funds to upgrade the Tomahawk missile and its associated command-and-control systems, which target and plan strike missions. The TBIP will improve accuracy by a factor of two and reduce the missiles required per target by incorporating jam-resistant GPS and inertial navigation systems. The missile will have a dual anti-shipping and land attack warhead with hardened target penetration capability which will expand potential targets to include weapons bunkers, buried POL storage, bridges and armored doors. The advanced tomahawk weapon control system and afloat planning system will improve tactical responsiveness and reliability by reducing mission planning timelines and limiting the possibility of collateral damage. Developing concepts include improving Tomahawk performance in a tactical role. This will include in-flight communications, various warheads, sub-munitions, and real-time targeting.

Naval Surface Fire Support (NSFS).—NSFS is the coordinated use of sea-based weapon systems to provide offensive support to the maneuver commander ashore. During the early phases of an amphibious assault, NSFS provides necessary fire support to the landing force. Once organic artillery is operational ashore, NSFS complements the firepower available from artillery and close air support. The Navy-Marine Corps team has embarked on an aggressive development program that will significantly improve range and lethality of our surface fire support prior to 2001. The program plan to increase range and improve effectiveness includes improvements to existing MK 45 five-inch guns and propellants and development of gun-launched guided projectiles. In addition, we are conducting shipboard firing tests of ATACM's, SLAM and Standard missiles to evaluate future employment of fast-reaction missile systems in support of forces ashore.

Trident SSBN and D–5 Missile.—The Trident II D–5 missile is the most capable and survivable weapon in the strategic triad. The only strategic ballistic missile currently in production, the Trident II D–5 missile will provide the U.S. with a modern and credible strategic deterrent for the foreseeable future.

In September 1994, the Department of Defense completed the Nuclear Posture Review. This comprehensive assessment, which is predicated on the ratification of the START II Treaty, determined that the optimal force structure for the nation's sea-based leg of the strategic triad would be 14 Ohio (SSBN–726) class submarines, all equipped with the Trident II D–5 missile. To meet this requirement, four Ohio-class submarines currently equipped with the Trident I C–4 missile will be upgraded to carry the larger and more capable Trident II D–5. If the START II treaty is ratified, four other Ohio-class submarines could be converted to non-strategic service—enhancing conventional strike and/or providing special operating forces platforms—or be dismantled.

Seawolf (SSN–21)-Class Attack Submarine.—Seawolf-class submarines were designed to operate autonomously against the world's most capable submarine and surface threats; these impressive capabilities translate directly into enhanced joint warfighting performance in high-threat littoral areas. These multimission combatants will set the standard for submarine technology well into the next century. In addition to their abilities to counter enemy submarines and surface shipping, Seawolf-class submarines are ideally suited for battlespace preparation roles. Incorporation of sophisticated electronics greatly enhances indications and warning, surveillance, and communications capabilities. These platforms are capable of integrating seamlessly into a battle group, or shifting rapidly into a land battle support role. With twice as many torpedo tubes and a 30 percent increase in weapons magazine size over Los Angeles (SSN–688) class submarines, the Seawolf is exceptionally capable of establishing and maintaining battlespace dominance. The Seawolf's inherent stealth fits well into the clandestine nature of Special Operations Force missions, and enables surreptitious insertion of combat swimmers into denied areas with minimum risk to U.S. forces. The SSN–23 will incorporate Special Operations Force capabilities, including a dry deck shelter and a new, specially designed combat swimmer silo. The shelter is an air-transportable device that piggy-backs on the submarine and can be used to store and launch a swimmer delivery vehicle and combat swimmers. The silo is an internal lock-out chamber that will deploy up to eight combat swimmers and their equipment at one time. Seawolf-class submarines will allow us to maintain our preeminent role in submarine operations.

New Attack Submarine (New SSN).—The New Attack Submarine (NSSN) design has been tailored for the 21st century joint littoral operations envisioned in the Navy Department's "...From the Sea" and "Forward...From the Sea" strategic concepts. Uniquely suited for all operations in the littoral, the NSSN incorporates the best new technologies and is designed for flexibility and affordability.

The NSSN maintains U.S. undersea superiority against a continuing Russian submarine development and construction effort. Its designed-in flexibility includes provisions for mission specific equipment, carry-on electronics, alternative weaponry, and remotely operated or autonomous vehicles. Improved electromagnetic and acoustic stealth will ensure the NSSN's ability to destroy advanced capability submarines expected in hostile littoral areas. Additionally, the NSSN will be able to interdict shipping or defend Sea Lines of Communication, a role that will become increasingly important as the number of overseas bases is reduced.

The New Attack Submarine also plays a pivotal role in the Navy's acquisition investment plan. By the year 2011, SSN–688 class submarines will start to reach the ends of their service lives at a rate of 2–4 per year. The Navy needs to achieve a low, continuous and efficient submarine introduction rate by 2002 in order to sustain SSN force levels. Starting the NSSN in 1998 accomplishes this goal, effectively counters an ever-increasing and sophisticated submarine threat, and is the foundation for future development and technology insertion into the submarine force.

Unmanned Undersea Vehicles (UUV).—Clandestine mine reconnaissance is the Navy's top UUV priority. Learning the full dimension of the mine threat without exposing reconnaissance platforms is vital to execution of maneuver warfare. An initial capability, designated the Near Term Mine Reconnaissance System (NMRS), is a mine-hunting UUV launched and recovered from a 688-class submarine's torpedo tube. The UUV, in combination with an SSN, represents a clandestine system capable of providing time-sensitive information on mining activities to the theater commander. The NMRS will provide an effective and much needed capability to the fleet in fiscal year 1998. The long-term mine reconnaissance and avoidance system will leverage developing technologies and lessons learned from the NMRS. This system will be capable of launch from submarines and will reach areas over the horizon to develop a thorough and accurate minefield reconnaissance picture.

Mine Warfare.—This essential supporting warfare capability is integral to the ability of naval forces to effectively open and maintain Sea Lines of Communication, assure the unimpeded flow of regional forces and shape and dominate the littoral battlespace. An array of modern systems continues to be developed and procured for our mine countermeasures (MCM) forces, which are among the best in the world. Our airborne MCM forces provide the only rapid deployment MCM capability available today. This capability will be enhanced with the completion of the mine countermeasures helicopter carrier in 1996. Also significant is the addition of the MK 37U variable depth mechanical sweep. The USS *Osprey* (MHC 1) class coastal mine hunters are being delivered at a rate of two per year and are performing to specifications. Efforts to defeat mines in the difficult surf zone region such as the shallow water assault breaching system and the distributed explosive technology are on schedule. Another system being supported within our program to improve our MCM capability is the remote minehunting system (RMS) which will provide an organic, surface ship hosted mine reconnaissance capability. The addition of RMS to the surface MCM force means fewer ships will have to enter minefields to neutralize mines.

Medium Tactical Vehicle Remanufacture (MTVR).—In October 1995, the MTVR program launched into the engineering and manufacturing development phase of the acquisition process to fill Marine Corps unique requirements for on- and off-road mobility. Under this program, the aging fleet of Marine M809/M939 series trucks will be remanufactured, making it the most capable cargo truck in its class in the world. By integrating many of the industry's standard truck components on the existing five-ton truck, its mobility, range and capacity is greatly increased while retaining a smaller footprint to meet expeditionary requirements. Once fielded, the added mobility provided by independent suspension, all-wheel drive and an automatic tire inflation system will allow Marine support elements to keep pace with the faster moving maneuver elements on the battlefield. Many of the improvements are specifically designed to reduce life cycle maintenance costs.

Light Weight 155 Artillery (LW155).—The LW155 is a joint Marine Corps/Army program with the Marine Corps as the lead service. Prototype evaluations have been completed, and based on successes in the operational assessments, the program is anticipated to move into the engineering and manufacturing development phase in early 1996. The LW155 is designed to improve markedly the tactical and strategic mobility of artillery units, because of its light weight, resulting in the enhanced ability of Marine commanders to provide indirect fire support to engaged forces. Current development of new artillery ammunition will provide even greater range and lethality for the LW155. It will be transportable by five-ton cargo truck or MTVR, MV–22 and the CH–53D/E.

Navy Sealift.—The coming year will see the Navy continuing its historical commitment to a strong strategic sealift capability. In the 1980's a $7 billion investment in strategic sealift spawned the fast sealift ships, a modernized Ready Reserve Force, and the core of our modern afloat prepositioned force. The 1990's will see another investment of $7 billion. Ongoing strategic sealift acquisition and readiness initiatives will expand surge, afloat prepositioning and sustainment capabilities. Never has the Navy been more determined to carry out its enduring mission of strategic sealift. We will deploy and sustain U.S. military forces, wherever needed, through delivery of combat and combat support equipment, petroleum products and other supplies. The Desert Shield/Desert Storm confirmed the need for a mix of sealift operational capabilities that offers prepositioned assets in strategic locations, surge shipping of critical weapons and heavy military equipment and sustainment shipping of supplies needed by U.S. forces in any theater of operations. We are committed to maintaining a strong sealift force and increasing its readiness level in order to meet DOD's ocean transportation requirements by three operational strategies—prepositioning, surge, and sustainment.

Prepositioned Sealift.—The Navy established its prepositioned force in the early 1980's in order to improve response time for delivery of urgently needed equipment and supplies to a theater of operations during war or contingency. Over the last decade this force has increased in importance and grown in number as the Department of Defense has reduced the number of troops and resources deployed forward. Prepositioned assets are able to transport equipment and supplies quickly to theaters of operation where they can be used by arriving military personnel. This is essential to the Department of the Navy's guiding strategy of "Forward . . . From the Sea".

Afloat Prepositioning Force (APF).—The APF is divided into three groups: 13 maritime prepositioning force (MPF) ships, loaded with Marine Corps equipment; 14 Army war reserve ships, including 3 ships that support a U.S. Army heavy brigade; and 7 prepositioned ships dedicated to multiservice requirements such as transporting fuel for the Defense Logistics Agency, ammunition for the Air Force and a field hospital for the Navy.

Maritime Prepositioning Force (MPF).—The 13 ships of the MPF continue to be a vital part of the Marine Corps ability to respond quickly to crises worldwide and will significantly improve operational flexibility for combat, disaster relief, and humanitarian assistance operations. In 1995, to ensure even better response, Maritime Prepositioning Squadron (MPS) One relocated forward from the continental United States to the Mediterranean. Procurement of an additional ship for MPS—known as MPF enhancement—will provide the Marine air-ground task force enhanced capabilities in naval construction, medical support, and expeditionary airfield construction. The first MPF enhancement ship is planned for delivery by fiscal year 1998, with procurement of the second and third ships to occur after the large, medium speed roll-on/roll-off program is completed.

Norway Air Landed Marine Expeditionary Brigade (NALMEB).—The NALMEB remains an ideally positioned, cost-effective deterrent, to assist in the protection of NATO's northern flank. A new burden sharing agreement governing NALMEB went into effect this fiscal year. This agreement significantly reduces program costs, and serves as a tangible re-affirmation of U.S. commitment to NATO and to our Norwegian allies.

Surge Sealift.—Surge shipping is the immediate transportation of heavy military equipment that our forces will need to meet warfighting requirements. The Navy's surge capability depends on a mix of sealift, including eight fast sealift ships, Ready Reserve Force ships and chartered ships from private industry. As a result of the 1992 Mobility Requirements Study, the Navy is currently undertaking a sealift expansion effort to increase DOD's ability to move military equipment quickly in the event of a contingency or war. The study highlighted a strategic sealift surge and afloat prepositioning shortfall of five million square feet and recommended the acquisition of ships to meet it. This enhanced sealift capability was validated by the Mobility Requirements Study Bottom-Up Review Update, signed by the Secretary of Defense on 28 March 1995. Specifically, the updated study recommends that DOD add three million square feet of surge shipping and two million square feet of prepositioned shipping by the year 2001. This translates to 19 large, medium-speed roll-on/roll-off ships (LMSR's): 11 for surge and 8 for prepositioning.

The LMSR's are ideally suited to transport large military vehicles and other equipment and cargo that cannot be containerized. Those LMSR's designated for the Afloat Prepositioning Force will provide strategically located, at-sea storage for military equipment and supplies, making them immediately available for transport to potential contingency sites around the world. LMSR's designated as surge shipping assets will provide the Navy with the capability to rapidly deploy the military equipment and supplies needed by U.S. troops in a theater of operations. In order to acquire the 19 LMSR's by 2001, the Navy's sealift acquisition program calls for the conversion of 5 existing commercial ships and new construction of 14 ships. These ships will begin delivery in 1996.

The Mobility Requirements Study also recommended that the Ready Reserve Force (RRF) include a total of 36 RO/RO's by 1996, which would provide additional surge sealift for rapid response in time of crisis. To reach that total, the study concluded that DOD required 19 additional RO/RO's. Currently there are 29 of the required 36 RO/RO's in the Ready Reserve Force. Two additional ships were procured in fiscal year 1995 and will join the force after they are upgraded to meet U.S. Coast Guard standards in 1996.

As of fiscal year 1996, Ready Reserve Force program funding was transferred from the Department of Transportation to DOD, and will be executed by the Navy. The Navy will pursue the acquisition of the remaining five RO/RO's.

Our surge shipping capability was successfully tested in mid-September 1994 when we activated a dozen RO/RO's, a crane ship, and a barge carrier from our Ready Reserve Force to move unit equipment quickly from Fort Bragg, North Carolina, and Fort Drum, New York, in support of the deployment of U.S. forces to Haiti. Additionally, another three vessels from the Ready Reserve Force were activated to support the British Army's deployment in Operation Quick Lift and again in Operations Joint Venture and Joint Endeavor to Bosnia. Their successful activation demonstrated the value of the Ready Reserve Force surge shipping for both U.S. and allied forces.

Short Range Anti-Armor Weapon (SRAW).—The SRAW, also known as Predator, is a unique Marine Corps anti-armor program. SRAW will provide the Marine Corps with a lightweight(< 20 lbs) antitank weapon capable of defeating armor threats from current and future main battle tanks at ranges up to 600 meters, including those equipped with explosive reactive armor or supplemental armor kits. Its soft-launch capability will permit firing within enclosed spaces. During 1995, the design of the SRAW was completed and engineering models were fabricated for subsequent test flights in 1996. Production is planned to begin in 1999 following the completion of the engineering and manufacturing development phase. A joint effort relationship was established in 1994 with the U.S. Army's Multi-Purpose Individual Munition program, which will use the SRAW's flight module and launcher assemblies.

Marine Air-Ground Task Force (MAGTF) C^4.—Littoral operations—operations that cross the boundaries among air, land and sea—continue to be the focus of the Marine Corps. Therefore, the MAGTF must be both interoperable with the Navy afloat and with forces ashore and in the air. The most important programs for making this happen are the Joint Maritime Command Information System (JMCIS) and the MAGTF C^4I migration to full Global Command and Control compliance, amphibious ship C^4I upgrades, and the integration of systems such as the Position Location Reporting System (PLRS) into Naval C^2. Additionally, as a full participant in the Joint Tactical Information Distribution System (JTIDS), the Marine Corps remains committed to the migration to common data links and other joint C^4 programs as well.

Critical to ongoing migration is the procurement of new equipment and upgrades to older equipment. The Marine Corps continues to spend a large portion of its procurement budget for these systems. Among these are: MILSTAR extremely high frequency terminals; tri-band super high frequency terminals; Enhanced Manpack ultra high frequency terminal; single channel ground and airborne radio system (SINCGARS); Tactical Data Network; Defense Message System; position location reporting system Product Improvement Program (PIP); AN/MRC–142 PIP; and Global Command and Control System.

Of these, SINCGARS is considered one of the most important. Fielding was completed in 1995 to I MEF, and II MEF fielding is under way. Delivery to III MEF and the Reserves is scheduled to begin in August 1996 and August 1997, respectively.

In addition, the Marine Corps is upgrading the communication infrastructure at its bases and air stations to include new telephone switches and fiber optic cable installation.

Joint Maritime Command Information System (JMCIS) Strategy.—The Navy version of the OSD migration path uses a single software engineering approach. JMCIS is the C^2I implementation of the Navy's COPERNICUS strategy for a common C^4I architecture. JMCIS uses a common operating environment, common application programming interfaces, common integration standards for developers and a common human/computer interface to ensure modularity and functional interoperability among various applications at all levels of command. JMCIS is the Navy's migration strategy to full Global Command and Control System compliance.

Global Broadcast Service (GBS).—Another major Copernicus effort, GBS is a revolutionary advancement in communications, providing high data rate service to many users at once and very high delivery rates to very small user terminals. No other currently fielded DOD satellite provides this type of capability.

Joint Maritime Communications System (JMCOMS).—Under the JMCOMS effort, the Navy is migrating multiple communications programs into a common architecture to functionally provide the Copernicus tactical communications pillars. All Navy tactical communications will move technologically from stand-alone networks on specific satellites to an integrated network management concept that will allow the operator to use both military and commercial satellite communications, greatly multiplying capacity. JMCOMS will provide an integrated network manager that will implement an automated tactical voice and video network. This program is currently conceptual in nature and is planned to be implemented in incremental stages.

Digital Wideband Transmission System (DWTS).—DWTS provides secure, bulk-encrypted voice and data, ship-to-ship and ship-to-shore communication at data rates up to 2.048 Mbps, operating over UHF Line-of-Sight. This system is also capable of supporting conditioned diphase, full duplex, TRI–TAC communications. DWTS will provide the necessary communications path to support joint task force, amphibious task force, and landing force staffs in expeditionary warfare planning and operations. It will be inter-operable with both Marine Corps and Army wideband systems currently in use.

Navy Tactical Command System-Afloat (NTCS-A).—The afloat segment of the Global Command and Control System is common operating environment compliant. It provides the tactical commander with timely, accurate, and complete all-source information management, display, and dissemination capabilities. These include multisource data fusion and distribution of command, surveillance, meteorology, oceanography, and intelligence data and imagery to support warfare mission assessment, planning, and execution.

Navy and Marine Corps Intelligence Systems.—The Navy and Marine Corps team is significantly increasing the effectiveness of its intelligence organizations. The Marine Corps is developing a self-sustaining intelligence occupational field. Numerous changes in the organization and manning of intelligence units also will enhance human intelligence capabilities and support intelligence collection, analysis, and dissemination in the operating forces. Under the joint umbrella, the Navy and Marine Corps continue to install the Joint Worldwide Intelligence Communications System to allow maritime forces greater access to the national intelligence community. This is now the core architecture for SCI communications at all levels—National Command Authorities, Unified Commanders, Joint Task Forces and Tactical Commanders.

Improvements in tactical intelligence capabilities are being addressed through enhanced RDT&E and procurement investment programs within the Joint Military Intelligence Program and Tactical Intelligence and Related Activities. The Marine Corps is addressing shortfalls in its imagery interpretation capability through fielding of manpack digital camera systems, secondary imagery dissemination systems, and initiatives to improve access to national and theater collectors under the Joint Services Imagery Processing System (JSIPS). The National Input Segment of the JSIPS is located at Camp Pendleton, California and manned by the Marine Corps Imagery Support Unit. A tactical exploitation group will be deployed to each MEF to receive, process, and disseminate imagery from F/A–18D ATARS-equipped aircraft, UAV's, the U–2 and other theater and national collectors.

Improvements to Marine Corps signals intelligence capabilities include the Radio Reconnaissance Distribution Device fielded to the Radio Battalions during the summer of 1994, the Portable Automated Computerized Lightweight Expandable Search System, and product improvement upgrades to the Mobile Electronic Warfare Support System, the Technical Control and Analysis Center and the Team Portable Communications Intelligence System. Systems that will help the Marine Corps benefit from the latest commercial technology and maintain our signal exploitation advantage over potential adversaries are additionally being pursued in projects such as the cryptologic carry-on initiative and radio battalion modifications.

Key Navy systems include the Cryptologic Carry-on Initiative, which matches new intelligence requirements with the latest commercial technology to more rapidly field compatible hardware. This initiative will meet tactical requirements through a central clearing house. The Joint Staff selected the Naval Warfare Tactical Data Base (NWTDB) as the process model for the Global Command and Control System (GCCS). The Joint Deployable Intelligence Support System (JDISS) has largely solved the operability problem for joint U.S. operations and for operations with NATO and U.N. forces. JDISS provides a responsive, secure exchange between and among intelligence centers and operational commanders. JDISS gives commanders what they need, when then need it, by providing "demand pull" as well as "smart push" intelligence. Finally, Intelink has been established as the intelligence community's version of the Internet, providing intelligence from an easy-access bulletin board.

To meet the need for properly trained intelligence personnel, we have formed three centers of excellence for Navy and Marine Corps Intelligence Training. These centers provide Service training and host Joint Task Force, Joint Targeting, Joint Intelligence Center and Joint Information Warfare courses. Both in the schoolhouses and during exercises and operations, the Naval Intelligence Doctrine (NDP–2) and the Naval Component Intelligence Tactics, Techniques, and Procedures (now Naval

Warfare Publication 2–01) apply joint doctrine to naval intelligence during peacetime, crisis, and wartime.

Unmanned Aerial Vehicles (UAV's).—The Navy and Marine Corps Team continues to refine its requirements for UAV's. Promising new systems now in development include the Medium Altitude Endurance (MAE)/Predator and High Altitude Endurance UAV's. The Navy plans to test the feasibility of landing and launching the MAE from the deck of an aircraft carrier. These platforms would give the Navy the capability to conduct surveillance of small mobile targets for long periods of time, greatly improving our awareness of the battlefield. Naval forces are today employing the Pioneer UAV, based from Sixth Fleet amphibious ships, in Bosnian operations.

Information Warfare.—The new concept of Information Warfare (IW) is accompanied by substantive operational progress. The Naval Information Warfare Activity is the principal technical agent and interface among service and national level agencies engaged in the pursuit of IW technologies. It is also the technical agent for development and acquisition of counter-C^2 and C^2-protect systems and is the technical support activity for the full range of IW actions. In addition, the Navy established the Fleet Information Warfare Center charged with developing IW/C^2W tactics, procedures, and training responsive to fleet commanders. They deploy IW/C^2W trained personnel and systems to support naval forces.

CONCLUSION

As part of our continuing effort to maintain the future relevance of naval forces, we are completing the development of a new naval operational concept that will serve as a coherent link between the Naval Services' strategic concept presented in "...From the Sea", as well as "Forward...From the Sea" and the tactics, techniques, and procedures in Navy and Marine Corps doctrinal publications. The concept will logically support our National Security Strategy and National Military Strategy while highlighting the unique operational and warfighting capabilities that naval forces provide to our nation. As we proceed, we will continue to emphasize our underlying priorities of people, readiness, innovation, modernization, and efficiency.

During the past year, the Navy and Marine Corps always answered the nation's call with success. We are proud of our achievement in making the strategic vision of "Forward...From the Sea" a compelling reality. In places as diverse as Kuwait, Somalia, Haiti, and Bosnia, the Navy-Marine Corps team has been, and is now forward deployed and engaged in the full range of operations from peacetime presence through humanitarian assistance to crisis response. That achievement is the result of the effort of many people over the past year and is the most important indicator of naval expeditionary capability "Forward...From the Sea".

Senator STEVENS. Admiral.

Admiral BOORDA. Mr. Chairman, let me summarize my brief oral remarks, and I will submit those for the record as well, if that is all right with you, sir.

Senator STEVENS. You have some time, Admiral. We will leave here in about 20 minutes.

NAVY ACCOMPLISHMENTS IN FISCAL YEAR 1995

Admiral BOORDA. OK. I looked at what I might talk about, as far as accomplishments for this past year, as a lead-in to what we are requesting in the budget for this year, and I did not have any trouble finding great things our Navy men and women have done. In fact, my problem was which ones should be talked about. I am going to talk about some that do not get talked about a lot. First of all, while most of us do not think about it much anymore, we had a real mission in Cuba that just finished about 2 months ago. In fact, there are still a few migrants there, a very small number, 35 this morning. But at the height of that operation, we had almost 50,000 migrants at the Guantanamo Naval Base.

It was truly a joint operation. There were times when a Marine general commanded it, a Navy admiral, an Air Force officer when it was a little more junior, and an Army general as well, a truly joint operation, with corpsmen and linguists and all kinds of people from all the services. But it was Navy families and Navy people who moved out of Guantanamo, separated, other people went down there on temporary duty, and did that job for over 1 year. They did a great job, and I did not want today to pass without mentioning it to you. That is hard stuff. It does not show up in the deployment statistics, but it does show up in their sacrifice.

Forward deployments are, in fact, however, our stock in trade. On any given day, on an average day in the Navy, 50 percent of our ships are underway, and about 25 percent are deployed. I checked this morning before I came. It is a pretty average day, 52 percent underway, 27 percent deployed, and by deployed I mean not gone for a week or two, but gone for 6 months. I will tell you, with the Secretary's support and direction, and very close attention by the CINC's, we are getting people home on time. Ships that leave can count on getting home 6 months later, and occasionally we do it 1 week or so early, too, and that is real important to people if they know they can count on returning when they are supposed to.

Let me talk about a few of those deployments. The Secretary mentioned U.S.S. *Kearsarge*, the marines, and the rescue of Scott O'Grady. That was a first-rate operation. I know, because I was there when those kinds of operations were initially planned. It was executed perfectly. My point is, that ship tied up in Norfolk or in San Diego, and those marines in Norfolk or San Diego, would not have been able to do that. That is why we deploy. You do not know when the call will come, and you have to be on station.

This past year the carrier U.S.S. *Theodore Roosevelt* was in the central command, filling in all the way from Norfolk, VA, to support Gen. Benny Peay there. She finished that, went into the Mediterranean, and then into the Adriatic. About that time, Saddam Hussein's sons-in-law defected, and went to Jordan. It was decided that our Government would show support for the King of Jordan while that was going on, to deter Iraq from doing anything untoward. So U.S.S. *Roosevelt* steamed at high speed to the eastern Mediterranean. On arrival she launched aircraft, and very quickly they were training over the desert of Jordan with Jordanian air force fighters.

At the same time, the New Orleans amphibious ready group came up through the Red Sea, into the Gulf of Aqaba, and put marines ashore, and they went inland and trained in the desert with Jordanian army forces.

What a signal for Saddam Hussein. Here was the United States training with Jordan right at the time he was making noises that we did not want him to make. It worked, and I think that was a strong signal. Those ships could not have done that had they not been forward deployed. That is what we do. That is also a good Navy and Marine Corps team story.

But about that time, as that was wrapping up, we had the tragedy in Tuzla. And as we experienced when I was there in February 1994, many civilians were killed. But this time it was different, and the world community, the United States and NATO, said that is enough, and we decided to commence bombing in Bosnia.

Admiral Smith decided that he needed the carrier, and carrier U.S.S. *Roosevelt* steamed at high speed from off the coast of Jordan back to the Adriatic Sea, launching air strikes as she entered the Adriatic. She joined with Air Force airplanes flying from the east coast of Italy, Marine Corps F/A–18D's flying out of Aviano, Italy, and with our allies, and launched precision strikes. This was different than the gulf war, where we launched less than 5 percent of our strikes with precision-guided munitions; now we were nearly 90 percent; this was very structured, very accurate, strike warfare.

It did not do the job. Bombing alone did not seem to get the Bosnian Serbs to do what we wanted them to do, which was to come to the conference table. So it was decided to shoot Tomahawk missiles. We wanted to show them something different. We wanted to show that we cared enough to send the very best. And so U.S.S. *Normandy*, arriving on station her very first day in the Adriatic, coming from the United States to start a normal 6-month deployment, got the call—this aegis cruiser—got the call from the battlegroup commander, Adm. Fox Fallon. He said shoot 13 Tomahawk missiles at command and control and air defense sites in the area of Banja Luka, Bosnia.

It took them 4.5 minutes to launch 13 missiles; 12 of those missiles hit their targets; the 13th was very close to the target but was deemed a miss. That is the accuracy the Secretary was talking about. That is better than advertised on that system, and it shows the improvements. The missile strike was immediately followed up by Navy, Air Force, Marine Corps, and allied strikes in Bosnia, and that resulted in the trip to Dayton. How it turns out will be something still to be determined, but I cannot talk about the Navy without telling you how proud I am of Adm. Snuffy Smith, who is commanding it all on the ground.

Little known to many of our people, the Seabees were there, too. As the Army was coming into Bosnia, the Seabees were building for them. The Seabees came with no support other than what they carried themselves, and that is all they need. They are tough and they got the job done and my Army counterparts have been proud to tell me about that, and I have been happy to hear it.

As we speak, U.S.S. *Independence* is finishing her time on station off Taiwan. That is so fresh I do not need to talk about it here, and I will skip that except to say that she has done her job and is now headed back toward Yokosuka, but she is ready to turn around on a moment's notice if she needs to, and there should be no doubt about that. U.S.S. *Nimitz*, coming all the way from the Persian Gulf where she was working for Gen. Benny Peay is on station, and will be there as long as the national command authority desires. That is a signal nobody can miss. The U.S.S. *George Washington*, who was working in the Adriatic and in the Mediterranean for Snuffy Smith and George Joulwan, has gone to what we considered to be a higher need right at the moment, through the Suez Canal and into the Persian Gulf. I do not think you can get a better display of mobility, flexibility, and combat power that we can use in this country than those carrier movements in time of crisis and control. They are forward and they are ready.

I was going to talk about Mountain Top, but in the interest of time I will not do that. That was a very successful exercise, and

I hope during the questions and answers maybe we can talk about that some more. It bodes very well for the future, not only antiair and ship defense over water, but projecting power over land to support ground forces, particularly the Marine Corps and the Army.

I could give lots more examples. Let me talk about our people for just 1 minute.

NAVY PERSONNEL

The men and women of the Navy who are doing the things I just talked about do not ask us for much. They ask that they be properly supported. They want and require ships and weapons that are effective. They want those ships and weapons today and in the future. That, gentlemen, is the most important quality of life asset we can give them. Weapons and systems that work, that will take them into the fight, let them win, and bring them back home, are quality of life assets.

They ask for reasonable pay and benefits, and that these be predictably and reliably provided. They ask for decent housing, whether they are married or single. They want reasonable promotion opportunities, and the chance to serve a full career without a lot of discussion, if they do their job well. And they require sufficient force levels. We do not normally think about that as a quality of life issue, but they require sufficient force levels so that we do not use our people or their equipment so much that we wear them and the equipment out.

They want a life that is arduous, and, in fact, when they are working hard their morale is higher. But they do not want it so arduous that they sacrifice more than we should ask of them. I do not think that is too much for them to ask. I think we should provide it to them, and that is what our budget seeks to do.

SHIPBUILDING

We have a modest but critically important shipbuilding program. We have asked for the minimum number of aircraft to move to a new class. It is time for the Navy to have a new airplane, and I am glad to tell you that the F/A–18E/F is ahead of schedule, it is on cost, it is flying at Patuxent River right now with both contractor and Navy pilots doing the test flying. The airplane is and will be a success, and we need to keep it on track.

PREPARED STATEMENT

I think my last comment is that we cannot ask anymore of our people than what they are now giving us. All we need to give them in return, as this committee and subcommittee have done, is consistent support, and I know I can count on you for that.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF ADM. J.M. BOORDA

Mr. Chairman, members of the committee, I am pleased to be with you today to discuss our fiscal year 1997 budget submission and to answer any questions you may have for me. I have a very brief opening statement, the joint statement of Secretary Dalton, the Commandant and me has already been submitted for the record.

This informal statement is divided into three parts, first, I'd like to outline just a few of our recent and ongoing operations. I'm proud of our people and I want you to know it. Second, I'd like to mention a few facts that are important regarding our navy of today. Finally, I'll outline just a few of the key portions of this year's request.

It is not difficult to find Navy accomplishments during this past year, accomplishments of which we can all be very proud. The difficulty is in deciding which ones of so many I should discuss. Let me mention just a few.

Navy men and women, together with their counterparts from all the services, have completed a demanding task in Guantanamo Naval Base in Cuba during this past year. Nearly 50,000 migrants were cared for at our base during the period of highest occupancy. This was a very professional effort. It required sacrifice, ingenuity, and just plain hard work. It is essentially complete now and the families of many of our sailors are back, with their sponsors, at the base. A first rate effort by Navy people working as part of a quality joint team.

Forward deployments are our stock and trade. Just over 25 percent of our ships are forward deployed on any given day. Others are training to go forward. A typical day finds over 50 percent of our ships underway. Given this performance, it is hard to determine just which deployments to highlight. I've chosen a few of the carrier battle groups and amphibious ready groups for this morning.

You have all heard of the great work of U.S.S. *Kearsarge* and, most noteworthy—the embarked marines—in the rescue of Captain O'Grady in Bosnia. Only forward deployed forces, on station and ready for immediate tasking, could have accomplished such a feat. This was sailors and marines working together at their best.

This past year U.S.S. *Theodore Roosevelt* had surged from the Med to the central command and Persian Gulf. She returned to the Med and, when the sons-in-law of Saddam Hussein escaped to Jordan, she was sent to waters off Jordan to provide support and presence. Quickly picking up these duties, her aircraft were in the skies over Jordan, exercising with that nation's air force, sending an unmistakable signal to Iraqi leaders. At the same time, the U.S.S. *New Orleans* amphibious ready group and embarked marines proceeded to the Gulf of Aqaba so that the marines could exercise ashore with Jordanian armed forces—again, an unmistakable signal of power and determination.

Then the situation in Bosnia changed. Following a tragic attack in Tuzla, it was decided to use air power to compel the Bosnian Serbs to comply with international will to end the bloodshed. U.S.S. *Theodore Roosevelt* steamed rapidly from the eastern Med to the Adriatic and, on arrival, began immediate air strikes in conjunction with Air Force, U.S. Marine Corps and allied aircraft. Precision weapons delivery was the order of the day and it was both accurate and telling. When it became clear that our forces would face increased opposition from anti-air systems should they be used to strike in the Banja Luka area, U.S.S. *Normandy* was ordered to fire Tomahawk missiles against key command and control and air defense facilities. On her first day in the Adriatic, following a rapid transit across the Atlantic, *Normandy* fired 13 Tomahawk missiles in less than five minutes. The nation saw this on their televisions and the Bosnian Serbs felt the impact. Their radars were down, their command and control out of commission. That was followed by coordinated aircraft strikes and, just a few days later, U.S.S. *Roosevelt* was relieved by U.S.S. *America*. She also arrived on station ready and her aircraft joined in the fight on their very first day. In short order, the warring factions found themselves in Dayton, Ohio.

Even before U.S. forces entered Bosnia, U.S. Navy Seabees were in the Balkans providing construction support for Army operations. These professionals are lean and mean and they got the job done, earning the respect and thanks of their joint force comrades. As you know, a U.S. Navy admiral, Leighton (Snuffy) Smith commands the NATO forces there and we are all proud of him and his allied team.

Today, as we speak, U.S.S. *Independence* is on station just east of Taiwan, carrying out the orders of national command authorities. She and her battle group ships are at sea—once again—forward—on station—and ready. A good example of this is the U.S.S. *Bunker Hill*, a cruiser, who detected and tracked each of those four Chinese missiles. She picked them up at a maximum range and tracked each, through space, to splash in the target areas. Everything in this great ship worked as designed. U.S.S. *Nimitz*, forward in the Persian Gulf, was ordered to sail toward Taiwan and arrived, fully ready. Because there is concern about a gap in the gulf at this time, U.S.S. *George Washington* and some of the ships from her battle group sailed from the Med to the gulf—they, too, are forward and they are ready.

Concurrent with these real world operational missions, we are working to maintain the technology edge which has helped make our people effective for so long. A significant example of this is the recent Mountain Top experiment in Hawaii which explored tactical applications of advanced sensors and systems. For the first time, an aegis cruiser engaged cruise missile targets beyond her radar horizon, demonstrating both the potential to project naval power well inland, and the many potential joint applications of the cooperative engagement capability.

Mr. Chairman, that is the Navy of today and these are but a few of the many examples I could give. Aircraft carriers and their aviators, cruisers and destroyers, submarines, amphibs with their Navy shipmates, the marines, and so many others—they are getting the job done with little fanfare—today and every day.

These men and women ask for little. They ask that they be properly supported. They want and require ships and weapons that are effective—today and in the future—that is the ultimate quality of life should they be sent in harm's way, and they often are. They ask for reasonable pay and benefits and that these be predictably and reliably provided. They ask for decent housing by they married or single. They want reasonable promotion opportunity and the chance to serve a full career should they choose to do so and serve well. They require sufficient force levels so we can give them an operational tempo that is not so arduous that we overtask them or their ships and aircraft. That isn't too much for them to ask and our budget submission seeks to give it to them. I'd be happy to talk about the details, for our people are the most important part of this Navy of ours.

Given the fiscal resources available, we've asked for a modest but critically needed shipbuilding and aircraft procurement program. We've considered our joint warfighting contributions and obligations and tried to meet them. We've concentrated on real quality of life concerns even as we've tried to get more efficient in all that we do. We have worked this budget as a joint warfighting participant and, most importantly in my view, in harmony with our sister naval service—the Marine Corps—as together the two naval services provide the nation with a powerful force, forward deployed and ready to get the job done—a job—a continuing series of jobs—that require a great deal from our sailors and marines. This budget seeks to permit them to do just that. I am proud of our Navy and our Navy people. I know you share that pride. Believe me, it is well deserved.

I'll be pleased to answer your questions. Thank you.

Senator STEVENS. General, we are going to listen to you for another 10 minutes, and then go vote, all right?

General KRULAK. All right, sir. I will be very brief.

First off, I am honored to be here. This is my first time before this committee, and I am honored not because I happen to be the Commandant, but more importantly I am honored because I get to represent men and women who wear the eagle, globe, and anchor, and that means a great deal to me.

I have a statement, and I would respectfully request that it be entered for the record, because I am going to diverge from what I was going to say and address something that I believe is important to the committee, and certainly important to me, and it will just take a second.

Senator STEVENS. We will put all the statements in the record.

USMC AVIATION SAFETY

General KRULAK. Two days ago one of the Marine Corps' day/night attack aircraft, the AV–8B crashed in a field outside of Yuma, AZ. A great job done by the pilot, by the way, who, as he lifted off, had a fire chip light go off. His wingman and somebody on the deck saw fire coming out of the aircraft on the port side. He attempted to bring it around and put it down, saw that he was going to lose it, noticed an orchard, pointed it into the orchard, and ejected, and thankfully he is alive and there was no real collateral damage.

The point is that that is one of several aircraft that my corps and your corps has lost over a very short period of time. Some 3 weeks ago I asked the Naval Air Systems Command to take a hard look at the aircraft itself, at the engines. I had a hard look at the training that was taking place and the talents of the pilots, and I also put an investigation obviously on all the aircraft accidents. We are waiting for the results of those investigations. Systems Command indicated that they could find no specific cause for those accidents within the aircraft as they looked at them.

When this last incident took place, I went out to the Marine Corps and I told them I wanted to stop flying all aircraft. I wanted only those that were in support of our operations in Bosnia and anything that was operationally connected, and those would be the only people who would get the waiver to fly. Instead of looking just at the pilots and at the system itself, we are now looking at what I call the maintenance process, from the supply system all the way to that young marine on the hangar floor turning the wrench, trying to see if there is anything within that system that may have caused such a spike, a spike that we have never seen in Marine Corps history.

Next week—early next week—I am bringing all of the aviation generals in the Marine Corps to New Orleans, where they will take the results of the investigations that have taken place to date, and also the information derived from this standdown, and see if we can get to the bottom of it, because obviously we are tremendously concerned about this situation.

USMC FORWARD DEPLOYED

With that in mind, I would only say and echo what the Secretary of the Navy and my dear friend Mike Boorda have said about the Department of the Navy. For the Marine Corps, last week we had 27,000 marines forward deployed around the world. You do not hear much about them. They are just out there doing what you asked them and what the Nation asks of them. They ask very little in return—27,000; 3,000 of those were Reservists that we call part of our total force Marine Corps. They are out managing instability in a world that is getting more and more complex.

PREPARED STATEMENT

I look forward to answering your specific questions about your corps, but I can tell you right now, we are ready, we remain ready, and we will be ready in the 21st century.

Thank you very much, sir.

[The statement follows:]

PREPARED STATEMENT OF GEN. CHARLES C. KRULAK

Mr. Chairman, Members of the Committee, I am honored to be here representing the young men and women of your Marine Corps.

Nearly 45 years ago, the 2d session of the 82d Congress, mandated that the Marine Corps be an expeditionary force in readiness, a combined-arms team, a ground and air strike force, naval in character, and the "most ready when the nation is least ready."

Over the years, your Marines—along with their Navy counterparts—have shed their blood, sweat, and tears to make that mandate a reality. This committee has also played a major role in that effort. The V–22 and our end-strength are but two examples of that major role.

By design, your Corps has never focused on a specific threat. The demise of the Soviet Union has not changed our outlook. We focus on uncertainty—the ability to fight across the entire spectrum of warfare, from MRC's to crisis response.

Our capability to respond in the face of uncertainty is built around a lean, economic force that delivers the most return on the taxpayers dollar. For under 6 percent of the defense budget, your Marine Corps provides nearly 15 percent of the nation's forces.

To meet the challenges of the "day after tomorrow," we need to maintain a quality Corps. We need to invest in the future. We recognize that our investments today will determine the state of our forces tomorrow. We are proceeding with mission and budget realities in mind. Where there are ways to save money, we are pursuing them—our Medium Tactical Vehicle and AV–8B remanufacture programs are examples. But we need to proceed with modernization efforts like the V–22, the AAAV, the lightweight 155, and the JAST program. These are "leap ahead" programs around which we will build the 21st century Marine Corps.

The future Marine Corps will give our nation an unbeatable force, built around highly capable men and women, bound by the unbreakable bond of our unique spirit, and trained, equipped and ready to meet the uncertainties of the 21st century.

Senator STEVENS. Thank you, General.

Mr. Secretary, we are told that there has been a slight delay on the starting of the vote, it will start in 2 minutes, so let me just take a couple of minutes, 3 minutes, or 4, and turn to the vice chairman.

PAY EQUITY

We sort of have a difficulty because we have not seen the detail of the administration's budget yet. I am certain you realize that. We have generics, but we do not have the fleshing out of some of these items, so it is a little difficult for us to deal with it when it is delayed so late in the year. One of the things that we have been told is the President will recommend a 3-percent pay raise and a housing allowance increase, and as I understand it that is two-tenths of 1 percentage point more than inflation. And it is welcome news.

But, Mr. Secretary, can you tell us, have you seen the quadrennial report? How does that fit into the basic comparability to private sector wages, this wage increase now, this pay raise of 3 percent? Will it take us up to parity with private sector wages, as we should do? We do that every quadrennial, and I do not know whether we had any advance as to what is going to be in that quadrennial report, have you?

Mr. DALTON. Senator, we are requesting a 3-percent pay raise in this year's budget, and when I go out to the fleet to visit with sailors and marines, compensation is certainly one of the questions I am often asked. Not only are we going to be requesting a 3-percent pay raise this year, but we will be working toward closing that gap in each of the next several years. We have made a commitment to look at pay raises each year.

Right now the gap has not closed. It is not on parity with a comparable job in the private sector. This year's increase helps address this shortfall because it is slightly above the rate of inflation and it is something that we will address each year in our submission to the Congress with respect to a pay increase.

We have come a long way from where we used to be with the pay disparity, but we have not closed the gap yet, and I think it is something we need to address. I am not sure that we will ever have true comparability, but I know that we are closing the gap, and that is important to us. It is important that we have adequate compensation for our people. Quality of life is one of the things that

I mentioned that in order to retain quality people, we have outstanding men and women serving on active duty today, but if we are going to retain them, compensation is one of the issues that is important to them, and the other quality of life initiatives such as housing, medical care, and those kinds of things, are important, as well.

But I would like to give the CNO and Commandant an opportunity to address this issue, because I know they talk to our sailors and marines on a regular basis about it as well.

Senator DOMENICI. Mr. Chairman, could I ask a procedural question of the Chair?

Senator STEVENS. Yes.

Senator DOMENICI. Do you intend, after the vote on the floor, to reconvene this subcommittee and continue on?

Senator STEVENS. I certainly do, if that is agreeable to everyone concerned. The vote has now started. We would normally have about 10 minutes before we would have to go over there. I would suggest that others might want to go over, and they can take up where we leave off, if you will go now, and when you come back you can—are there two votes?

Senator BUMPERS. As I understand it, this is the motion to instruct, unless it has been changed.

Senator STEVENS. We will continue, is the answer, yes.

Senator LEAHY. Mr. Chairman, I may get held on the floor over there, so I would like to leave some questions for the record.

Senator STEVENS. I would be happy to do that for you.

Senator Inouye is going to go over and come back, and he will be the chair if he gets back.

We will just keep rotating back and forth.

Admiral.

Admiral BOORDA. On the pay question, we have not seen—because they are still working on them—the seventh quadrennial review results. I met with the members of the review, as did many of the other service chiefs and secretaries or under secretaries. They are looking at the pay raise issues—actually, pay adjustment issues is a better way to say it, and how they might be applied in the future. But their work is still ongoing.

Our feedback is that pay is either the No. 1 or No. 2 issue when people decide to leave active duty, so it is something we have to pay attention to. My experience is similar to that of the Secretary. It is a question and a comment that always comes up, and I would expect it to be that way. It is important to people and their families. I think we have made a step forward by not recommending less than the law allows. That is not well received when that happens, and so we are not doing that, and you have helped us not do that. I think the issue of how we deal with the quadrennial review has to wait until that is over.

HOUSING ALLOWANCES

Senator STEVENS. My staff tells me that about 20 percent of service members live off base, and that would probably be higher in your service than any. It seems to me that the problem is that we do have on-base allowances and we have off-base allowances. Do you feel, Mr. Secretary and Admiral, you have enough authority to vary those so that there is a balance between the on-base and off-base allowances, or do we need to address the question of increasing the off-base allowances by law?

Mr. DALTON. We do an annual survey to address the locations where off-base housing is most significant and to check what it should be. We then come back and make adjustments where we can. I am not aware that we need any additional legislation with respect to that.

Admiral BOORDA. The Secretary is correct. The basic allowance for quarters, however, has lagged behind. As pay raises lagged inflation—by law, they were one-half of 1 percent behind—so as pay raises lagged inflation, basic allowance for quarters, which was matched to that, also lagged inflation, and sailors and marines and soldiers and airmen got further and further behind. So there is a need to bring the basic allowance for quarters for off-base housing back up to where it should be. The administration has, in last year's budget, recommended a differential between the pay raise and that basic allowance in order to start catching up, and we need to keep doing that.

Senator STEVENS. But do you have enough authority to recognize the increased cost off base, for those people who need housing allowances off base?

Admiral BOORDA. Not as services, no. Services have no authority to do that. The Department of Defense, under the law, takes these surveys the Secretary was talking about, and uses a mathematical formula to derive those allowances. So no, there is no flexibility at the service level.

Senator STEVENS. All right. We will talk to the Department about that.

General, do you have a comment about the pay raise?

General KRULAK. Nothing other than the fact that obviously young men and women in the Marine Corps and the Navy deserve everything we can give them, and we, like Mike, feel that what we have right now is the minimum. We obviously have a desire to continue to improve the state of pay of our service members.

As far as housing allowances in areas that are very high priced locations, we do, in fact, have adjustments that help the young marine or sailor in those high-priced areas.

Senator STEVENS. Thank you very much.

Gentlemen, I am informed it is just one vote, and we are following the normal procedure, the early bird concept. Senator Bumpers, you are next.

Senator BUMPERS. Thank you, Mr. Chairman.

BATTLESHIP RETIREMENTS

Admiral, the Navy took four *Iowa*-class battleships off the Navy register so it would get rid of them. Now it seems to me that you are in something of—what shall I say—a difficult position. The fiscal year 1996 Defense authorization bill says you will maintain two of those battleships, and this committee said do not maintain any. What are you going to do?

Admiral BOORDA. You are right. We have four battleships. There are three or four serious bids for U.S.S. *Missouri* as a memorial, and you would expect that, given her history. There are varying degrees of interest in the other ships, but not nearly of the same intensity.

Two of the remaining three ships are in better condition. But you are right. We have in the Defense authorization bill, direction to put two battleships back on the naval register, and we have in the appropriations bill—act, now—conflicting direction that no money shall be spent in 1996 on battleships.

We have kept the battleships in the shipyard. We are not doing anymore work on them. We did not need to. We kept them in the condition that they are in, and we can do that without spending money. They are sitting there. We have the inactive ships' facility there anyway.

Senator BUMPERS. Admiral, give us a little guidance. I do not think you are getting any difficulty on this. Just tell us what would be your preference.

Admiral BOORDA. The best thing to do for us is to not give us any language next year. I will be able to go to the Secretary and say let us put U.S.S. *New Jersey* and U.S.S. *Wisconsin* on our list, leave them right where they are, and the Secretary this spring and summer will have to deal with the difficult problem of ranking the requests for U.S.S. *Missouri* and deciding where that ship goes. I think if you just do that, not give us anymore guidance, we can deal with it. We will not request any more money to do that.

AIRCRAFT PROCUREMENT

Senator BUMPERS. Admiral, let me ask you briefly, are we aiming for 1,000 F–18E's and F–18F's?

Admiral BOORDA. By the time that program is through, I expect that we will buy at least that many, and that the airplane will probably, midway in its life, become a potential for the foreign military sales program. So there will probably be more than that number built.

Senator BUMPERS. How many would we have to buy from this date to reach that goal?

Admiral BOORDA. We have not begun to procure that aircraft yet. There are 12 low-rate initial procurement in this budget.

Senator BUMPERS. You said the F–18F is under test, and so on?

Admiral BOORDA. Sir?

Senator BUMPERS. It is being test flown now, the F–18F?

Admiral BOORDA. The F–18E is at Patuxent River right now.

Senator BUMPERS. Now, is it your understanding that the goal is to buy 1,000 of those?

Admiral BOORDA. Yes, sir; that is about what our buy will be. It is actually a little bit more.

Senator BUMPERS. At a cost of roughly $84 billion?

Admiral BOORDA. The cost of the airplane will be about $3 or $4 million more per airplane than the F–18C and F–18D models that we are buying right now.

Senator BUMPERS. Now, as I understand it, there is only a request for 12 for 1997, is that correct?

Admiral BOORDA. Yes, sir; this is a new program.

Senator BUMPERS. Is that considered pretty much the max that we could procure at this stage of the game?

Admiral BOORDA. No, sir; we could buy more than that. It is an affordability issue.

Senator BUMPERS. Well, we are going to have to buy a lot more than 12 a year to have 1,000 of them, are we not?

Admiral BOORDA. We plan on doing that. We have the first two aircraft at Patuxent River now. We will be testing those aircraft for the next 3 years. As these new aircraft are built, we will begin to bring aircraft into the fleet. So this year we have asked for 12, next year we plan for 24, then 36, then 48, every year after that, much the way that we bought the F/A–18 in the beginning, much the way the Air Force bought the F–16.

Senator BUMPERS. Admiral, I have no quarrel whatever with that. What interests me is that the Navy says the F–18E/F is supposed to give us a really good strike fighter through the year 2015.

Admiral BOORDA. Yes, sir; longer.

F–22 AIRCRAFT

Senator BUMPERS. Now, I have always said that we are going too fast on the F–22. We are going too fast because of the technology and we are going too fast because of the amount of money it is going to cost and because there is no near-term threat. Why can we not slow down the procurement and the development of the F–22 if the F–18E/F is good enough to cope with the threat?

Admiral BOORDA. I do not pretend to be an expert.

Senator BUMPERS. Of course, I am getting you in the Air Force's ballpark, there.

Admiral BOORDA. You got me right on the mound in their ballpark, and I am looking out to the bull pen. [Laughter.]

Senator BUMPERS. Admiral, I guess we are going to have to run.

Admiral BOORDA. Thank goodness. [Laughter.]

Senator BUMPERS. You can be thinking about it.

Senator STEVENS. Senator Inouye will continue when he comes back.

[A brief recess was taken.]

NAVY HOUSING

Senator INOUYE [presiding]. Pursuant to the direction of the chairman, I would like to continue the hearing.

Secretary Dalton, I would like to begin by not asking a question, but to tell you that your visit to the Pacific resulted in rave reviews.

Mr. DALTON. Thank you.

Senator INOUYE. There were those who were speaking very highly, but not especially about you. [Laughter.]

But about Mrs. Dalton. Apparently, while you were doing your official chores, your lady went around visiting wives and dependents, and especially the housing conditions, and I was told that she was just utterly horrified and dismayed, and shook up the Department of the Navy, and as a result they are going to have housing there.

I think seriously that says something, because the Navy of today is not the Navy of 50 years ago that we were accustomed to. There are many dependents, many wives, and I think looking at it from all aspects of the quality of life, it is so important because whenever the chairman and I travel and visit men and women, housing is top on the list.

So I want to commend Mrs. Dalton for doing her part as part of the Navy team.

Mr. DALTON. Well, thank you very much, Senator Inouye. I appreciate that. I remember that occasion very well. I am sorry Margaret is not here, because my claim to fame is her as the first lady of the Navy.

But I can tell you about that trip. It was the first time that I visited Hawaii as Secretary, and typically, as you point out, when I am out with sailors and marines, she does make it a part of her agenda to visit housing, day care centers, child care centers, and hospitals with spouses. Upon my return that evening, as we were getting ready for an engagement that evening I asked about her day, and she had been to see the housing in Hawaii, and as she was describing it she literally was in tears and said you cannot let our people live like that. She literally was moved by it. I said, well Margaret, when we get back to Washington I will ask for a briefing on housing, and you can come. So I did ask for a briefing.

When the person stood up to give the brief it was a civil servant. One of our very competent civil servants in the Navy Department said at the beginning of the briefing, Mr. Secretary, I have been here 25 years and I have never had a Secretary of the Navy ask for a briefing on housing, and I have certainly never had his wife here for the briefing.

It was scheduled for an hour, it lasted 2 hours, and it gave new impetus to our program for housing. We did request a significant plus-up in our budget last year of some 30 percent in housing, and have sustained a good deal of that in this year's budget. We appreciate the support of this committee in support of our housing programs, and we were able to break ground on a new unit in Oahu. We bulldozed those units that were so bad, and indeed they were unacceptable.

We, in the past year, have had a number of new housing developments around the world in the Navy. Norfolk, Oceana, Naples, are a few of the places that I have visited to specifically participate in ground breakings or ribbon cuttings, and we still have a significant challenge in this area because we have almost 40,000 units that are still unsuitable, in that they need more than $15,000 per unit in maintenance backlog. And what we have done in the plus-up of our budget has helped, but we still have more to do.

And frankly, I think we have got more to do than we can do in normal plus-ups with the budget. I think we need to look at new ways of leveraging taxpayer dollars, and we are doing that. The Congress has authorized a limited partnership program, and soon, this April, we plan to complete negotiations we are having for 400 new units with this limited partnership program in Corpus Christi, TX, and 200 units in Everett, WA.

The Secretary of Defense called for Marsh panel discussions on quality of life, and one of their major recommendations was a new military housing corporation similar to what is done in Australia. We are going to do that on a pilot basis within each service. The Navy will start in Corpus Christi and the Marine Corps in Beaufort, SC. This will be a new way of delivering housing and we will assess if indeed this program will enhance the way we deliver housing. Hopefully, this program will begin to address this problem which is a major challenge and a major quality of life initiative for our people.

When I say housing, I want to emphasize I am not just talking about family housing, but also housing for BOQ's and BEQ's for our single sailors and marines.

Senator INOUYE. Thank you very much. I am certain the men and women of the service appreciate what your wife has done.

Mr. DALTON. Thank you, sir.

RECRUITMENT

Senator INOUYE. Admiral, you pointed out what several of us are concerned about. The number of high school graduates is diminishing, the propensity to enlist is coming down, and yet you have a mission to recruit about 60,000 this year.

Admiral BOORDA. About 57,000, yes, sir.

Senator INOUYE. Will you be able to carry this off without considering category IV's?

Admiral BOORDA. We will not take category IV's in the Navy. We will miss goals before we will lower our quality. I am convinced this is the right way to go.

I think we will make 57,000. I can tell you that this job gets harder and harder, and the answer is not to recruit more, but instead to recruit well, to resource recruiting properly—and I think we have done that within the resources we have—but also to try to reduce the numbers we need to recruit by increasing retention. I think it is time—our Navy has become more modern with newer warships—that we can have a slightly older force. Not a lot, but a little bit.

Let me give you an example. The Air Force, which is roughly the same size we are, recruits about 20,000 to 25,000 less people a year than we do, because they have a slightly older, more senior force. And so we are looking very hard at that as one way to get at this problem. That would take a long time to do. It is evolutionary. In the meantime we need support for recruiting as we have asked for it, and we need support for retention initiatives so we can finally get to where we want to go.

DEPOT MAINTENANCE

Senator INOUYE. The Secretary pointed out that readiness was your No. 1 priority, but I notice that ship depot maintenance has been reduced by nearly 15 percent. Can you maintain readiness with this type of reduction?

Admiral BOORDA. We have funded the readiness account as the No. 1 priority. You are absolutely right. I do not know any other way to do business. We have funded our depot maintenance accounts at the minimum necessary to maintain required readiness. There is no extra money in these to raise readiness, so we are going to try to maintain it where we have it. These were simply budgetary concerns that are of difficult proportions for us, and clearly worth more discussion.

Senator INOUYE. Will this translate into reductions in personnel at shipyards?

Admiral BOORDA. I think we are where we are going to be. I know we have had many difficult discussions on this subject, but now that we have cut our naval shipyards by one-half and our naval aviation depots down to three, I am hoping that 1997, the budget year we are talking about here, will be a year of stabilization.

PACIFIC RIM MARINE BASES

Senator INOUYE. General Krulak, recently, I would assume as a result of certain activities on Okinawa, the former Prime Minister of Japan, Mr. Hosakawa, suggested that marines be redeployed to Guam and possibly to Hawaii. You may not wish to respond to this, but if you do, what are your reactions to that?

General KRULAK. Sir, one of the things I have been doing is I have certainly been responding lately, so I will respond to this. Obviously, the President is on his way over to speak with the Prime Minister, and I will not talk to anything that he might be involved with. I will only say that as we look to the future, and here I am talking to the 21st century, the importance of the Pacific, the Indian Ocean, and the Persian Gulf littorals, are going to become even greater and greater. I think that what we are all willing to sign up to is that the economic heartland of the world is rapidly shifting toward the Pacific.

With that in mind, and with what Mike Boorda's tremendous Navy and what your Marine Corps does for this Nation, that is to manage instability, the need for naval forces able to be forward deployed, able to not worry about overflight rights and putting big footprints on the ground, is going to become more and more important. The idea of pulling back to a situation where we are not in the theater that naval forces basically secured for this Nation, and secure as we saw just 1 week ago with the Taiwan-China tensions, to pull back from that capability, in my opinion, my personal opinion, would be a disaster, and we should not do that.

From that standpoint, I think that what we need to do is look very carefully at our forward-deployed posture; make sure that the relationships with all the countries in the Pacific rim and in the Indian Ocean are maintained; that we continue this tremendous spirit of engagement that the administration has going, where we are reaching out and touching our friends in the area, and I think that is something that needs to continue.

Senator INOUYE. General, I was advised sometime ago that you had conducted a study on the use of the Suez, the use of the Malacca Straits and also the Panama Canal, and the relative number of ships that use these passages. Do you have any outcome from that study?

General KRULAK. Yes, sir; I do. We conducted a study about 2 years ago. The Secretary of the Navy has got another one going within the Department of the Navy. But the results were that transiting the Panama Canal and the Suez Canal, you see between 48 and 50 large surface ships a day. Through the Straits of Malacca, you see in excess of 200. That, to me, is a critical point, because you have this tremendous surge of shipping normally coming out of the Persian Gulf area and feeding the economic fires of the Pacific rim countries.

And, again, I just believe that that shows and is indicative of the growing import of those expanses of ocean that we have and, of course, the littorals that go with them.

MEDICAL CARE

Senator INOUYE. Mr. Secretary, many of us are pleased—I am pleased—that you have placed personnel and the quality of life as your No. 1 priority. Whenever the chairman and I travel and sit down with the men and women of our Navy and Marines, the No. 1 concern of nearly everyone is medical care, not for themselves necessarily, but for their children and for their dependents.

How would you assess the medical care that is presently available to our personnel?

Mr. DALTON. Senator, I think it is very good. I get those direct reports personally as well, and have visited many of our installations. First of all, I want to tell you and the chairman and the members of this committee, we appreciate your getting out to the fleet and hearing from our sailors and marines personally. It is good for them to see you and your interest. I know you benefit from those personal visits yourselves. It is always a morale boost for me to get out and see them.

Questions do come up with respect to medical care. We are moving to the new TRICARE system, which is I think whenever you make changes, there is some transition that causes some uncertainty. But I think the TRICARE system is going to be a positive development. And I know that our Surgeon General is committed to enhancing the quality of the medical care that we have for our people, and that will continue to be a major priority.

Senator INOUYE. Mr. Chairman, can I ask one more question?

Senator STEVENS [presiding]. Certainly.

NEW ATTACK SUBMARINE

Senator INOUYE. This is on the attack submarine, Mr. Secretary or Admiral Boorda. As you know, there are some in the Senate and the House who favor two shipyards for the new attack submarine. And if we proceeded down this path, the question is, can we reach our objective in building this new one at the cost that we hope it will be?

Mr. DALTON. Well, let me start, and then I would like for the CNO to address this as well. We think, Senator, that two shipyards do make sense from the standpoint that we think competition is healthy. But there are other reasons for having two shipyards.

One is the fact that we may need a surge capability in the future should we get into another long-term international conflict where we see the need to build more submarines than one yard could build. There is also the insurance of ensuring against an economic disaster or a natural disaster. And those are reasons, in addition to the benefits of competition, that make sense. So we do support having two shipyards for our submarine program.

Admiral BOORDA. Let me address the cost issue headon. The reason we went to the new attack submarine instead of continuing to build Seawolfs past the third one was to get a modern, capable submarine, capable of dealing with the best threat we would have to deal with in the world today and tomorrow, at a cost that we could afford. We set a goal for ourselves that when we start building the NSSN, it should be about the same cost as its predecessor, the 688, since most of our submarines are 688's when it got into serial production.

The surest way to make sure that does not come true is to stretch the program out, because you bear all the administrative costs, all the overhead costs, all the R&D costs on a very small number of submarines. That is exactly what happened with Seawolf, because we did not build the whole class—we built a small number and said, OK, we are going to get off building that submarine.

So the answer, I think, to your question is that this is an expensive program. It gets more expensive by stretching it, not less. And the quicker we can get to serial productions, the yards competing, getting the lowest price we can, not changing it anymore, but just building it, the cheaper—cheap is the wrong word obviously in this program—but the less cost there will be.

Senator INOUYE. So your contention is that it would be in our national interest, if we are to have submarine force, to have two shipyards?

Admiral BOORDA. Yes, sir; I think we are committed to that now. We have structured a plan to work with the two shipyards—and actually, this is done by the secretariat, because, by law, acquisition is vested there—but they have structured a plan with the shipyards to share design information in an open way, while still maintaining competition. And that is not real easy to do sometimes, but we will be able to do that. So we get the value of synergism between the two design teams, but also get the competition, as they bid for ships.

The quicker we get to that, the quicker the price will come down.

Senator INOUYE. Thank you very much, Mr. Chairman.

Senator STEVENS. Senator Hollings.

Senator HOLLINGS. Thank you, Mr. Chairman.

First, let me thank the Secretary and Admiral Boorda, General Krulak. Mine are friendly questions. My brother-in-law is down there in charge of the Marine Reserve, and I have got a nephew on a ship there in Norfolk.

SOUTH CAROLINA COMMUNICATIONS FACILITY

Secretary Dalton, I believe I could put on a contest here of what NISE stands for, N-I-S-E, and if there were over three people in the room that knew what it was—the CIA must have thought of that—naval in-service systems engineering. When you tell them that in Charleston, they still blink. Why do not you just call it naval communications center, Mr. Secretary? Would that be all right, or something like that? You all have got that crew over there that thinks up these fancy names. Cannot you think up something better than that?

Mr. DALTON. Well, Senator, in terms of acronyms and that particular name, I cannot really take credit for it. But I will say this, I know that that NISE-East in Charleston is named for a distinguished American statesman that does an outstanding job. So I will say that about naming, that I think this was named well, but as far as the acronym for it and its title, I think it is pretty much settled at this point.

Senator HOLLINGS. Well, we have still a wonderful naval presence, not only with that, but with the school there that we have coordinated, the sub school, and the other facilities that we have there. And we are very pleased to have them. And particularly, General Krulak, down there at the Marine air station. I had the occasion, just a couple of weeks ago, to go through it thoroughly. We have 500 of those young marines out there now in Bosnia.

General KRULAK. Yes, sir.

F–14 ACCIDENTS

Senator HOLLINGS. And I saw another 500 that had just gotten back. And I saw the crews doing the repair work and everything else. And, of course, a pilot does not want to go up unless he has got a good repair crew and everything else. What is happening with these F–14's? I do not think it is necessarily the pilots when you lose five of them here in the last couple of months and 30-some over the history. Is that engine powerful enough to carry that F–14?

General KRULAK. The F–14, sir?

Senator HOLLINGS. Yes, sir; that we keep losing. I know we lost an F–18 the other day off of Beaufort, but that is unusual.

General KRULAK. Yes, sir.

Senator HOLLINGS. But not the F–14. When you lose five of them in a couple of months, that is pretty bad.

General KRULAK. Sir, let me ask my good friend, Mike Boorda. The Marine Corps does not fly that.

Senator HOLLINGS. Yes; excuse me.

Admiral BOORDA. The F–14 is Navy's frontline fighter. We have lost three this year. That has stabilized. I need to qualify what I am going to say, because every accident is a tragedy. When you have a mishap like we had in Nashville, it is a particular tragedy. They are all tragic. One is not worse than the other. They are all bad.

The F–14—if you look at Navy safety records today, we are better than we were last year, and last year was our second-best year in the almost 80 years of naval aviation history. What we did was we set a record, the Marine Corps and Navy, for days this year without an accident, and then we had a lot of mishaps all at once. It got everybody's attention and it got mine, too.

So what we did as a team is we got the engineering people, the technical people, the contractors' people, the aviators themselves and the leadership and tried to find a common thread in these three F–14 mishaps. We did not find the common thread that a lot of people speculated about. But our investigations are coming closer to an end, and I believe, in two for sure, and maybe the third—and I think that one also, because we have recovered the engines—we will be able to say definitively what we think happened, and that is coming soon.

And what we have done in the meantime is we have restricted the envelope in which the F–14 flies. The pilots tell me, maintenance people tell me, contractors tell me that this airplane is a good airplane to fly in its envelope, but when you get out on the edges, it becomes very difficult. When you get outside, it becomes sometimes impossible to fly.

So what we are going to do is restrict flying out on the edge of that envelope except in operational combat situations. This does not restrict training to any significant degree, and the pilots are comfortable with it.

DIGITAL FLIGHT CONTROL SYSTEM

The second thing we are going to do is put a safety modification called the digital flight control system in the F–14 airplane. It is about an $80 million program. We have money in this year's budget. So it does not require an add on. It is in there. We have reprogrammed money for 1996. We will need some money in 1998, and we will program for that. That will help keep the airplane within its limits and help the pilot do that. It will be completed by the end of next year.

In addition, we have found a minor engine change, but one significant to the pilot, that will warn them of an impending oil breather problem and let them back off on the throttle. We found this in one of the accidents that we had in 1994, for which we finished the investigation in 1995.

I believe I am comfortable with what the F–14 community and the aviation community tells me about this work. I believe we have arrested that problem.

Senator HOLLINGS. But, Admiral, in combat, of course, the pilot is not thinking about restricting the envelope. And it has been said that it is engine trouble. Rather than restricting the envelope, have you ever thought of getting a new engine, or a newer engine, so that you do not have to restrict it?

F–14 ENGINES

Admiral BOORDA. We have, sir. We talked about that in the seventies and in the early eighties, and people still talk about it today. The TF–30 engine is in the F–14A model, which is the majority of the F–14 force. There are some F–14B's, which have the new engine, the F–110 engine, and the F–14D's all have the new engine.

The F–14A's will be gone, out of the Navy, by 2004. If it turns out that we buy the F/A–18F sooner or a little bit quicker, more of them—the F–14A will be gone sooner than that. It is $23 million per airplane to reengine the TF–30 airplanes, and they will be gone out of the inventory no later than 2004—$23 million per airplane. So I think that what we are doing, and the technical community and the aviation community agree that what we are doing makes more sense.

Senator HOLLINGS. Thank you, Mr. Chairman.

Senator STEVENS. Yes, sir.

Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

JAVELIN MISSILE

General Krulak, I understand that you are funding the Javelin in fiscal year 1997 for the first time, is that correct?

General KRULAK. Yes, sir.

Senator SHELBY. Could you tell the committee about this program basically and how it will improve the marines capabilities?

General KRULAK. Yes, sir; the Javelin is an antitank system, a superb system. It is a fire-and-forget weapon, with a range of approximately 2,000 meters. It has a top-down attack, so that it can defeat any known armor that exists on the battlefield today and that is conceived to exist in the future. One of the great features is that it is as suitable in urban terrain as it is in the open terrain. This is a system that literally can be fired from inside a building and still be effective.

Senator SHELBY. It is also a tremendous leap in the technology you now have; is that correct?

General KRULAK. That is correct, sir.

Senator SHELBY. Because what you now have——

General KRULAK. Is the Dragon, which is a——

Senator SHELBY. It is outdated, is it not?

General KRULAK. It is outdated. It is a manned track. He has to watch it the whole time, and he becomes very vulnerable himself. This is like comparing a Maserati to a Model T.

Senator SHELBY. Now, this has been developed as a joint program between the U.S. Army and Marines?

General KRULAK. The Army and the Marine Corps, sir. That is correct, sir.

Senator SHELBY. It has worked well?

General KRULAK. It has worked extremely well. We are getting our first 48 tracking units and the first 148 weapons themselves this year. And it is a great——

Senator SHELBY. That is not going to be enough, though, is it?

General KRULAK. Well, sir, we have——

Senator SHELBY. It is a start?

General KRULAK. It is a start. This is the first year of buy. And, as I indicated, this is a tremendous capability that is just entering the corps.

NAVY UPPER TIER

Senator SHELBY. Admiral Boorda, what we call the Navy upper tier—and you call it something else now—have you changed the name of it?

Admiral BOORDA. I still like to call it upper tier. If you call them upper tier and lower tier, we will all know what we are talking about.

Senator SHELBY. Sure. In other words, the Navy theater wide TMD system?

Admiral BOORDA. Right.

Senator SHELBY. It has received substantial funding as a result of the program review and we support it. The need for this system is especially being brought to light in view of what has been going on recently in the Taiwan Strait, is it not?

Admiral BOORDA. Yes, sir.

Senator SHELBY. I have some questions about the configuration of the system. Does the Navy have a particular interest in adapting the LEAP technology to the Navy theater wide system?

Admiral BOORDA. We do. That is our primary warhead now for that missile.

Senator SHELBY. Has that been decided, or are you still considering that?

Admiral BOORDA. Our program is structured that way. DOD and BMDO are always—and we are working closely with them—are always looking for new developments.

Senator SHELBY. Sure.

Admiral BOORDA. So we will be looking at the THAAD warhead also. But, right now, our program plan is to use the LEAP projectile.

Senator SHELBY. Do you intend to take advantage of the technology investments that we have made, the taxpayer has made, in THAAD?

Admiral BOORDA. We are in discussions all the time with BMDO on that issue. We are certainly not against that.

Senator SHELBY. Admiral, I would assume from your forthright manner that you are interested in the best available technology, from wherever it comes?

Admiral BOORDA. I think the theater ballistic missile problem for our forces, where we know we are going to deploy forces to airfields and seaports—and Chuck Krulak's forces have to go ashore—I think we have got to solve the problem, and we have to use the best we can to solve it, whatever that turns out to be.

Senator SHELBY. Just like the marines worked together with the Army on the Javelin, if you are working with the Army or they are working with you, that does not matter, does it?

Admiral BOORDA. BMDO is, in fact, a joint program, and we are a big part of the BMDO.

BLACKHAWK HELICOPTER

Senator SHELBY. Let me bring up the Blackhawk helicopter. You have got the CH–46, which is, to say the least, mature, is it not?

Admiral BOORDA. It is older than a lot of the pilots, sir, flying it.

Senator SHELBY. It is older than a lot of people in this room, isn't it?

Admiral BOORDA. Not all of us.

Senator SHELBY. Not everybody. [Laughter.]

Especially up here. [Laughter.]

Would you consider a modification of the Army's Blackhawk helicopter for the Navy's vertical replenishment mission?

Admiral BOORDA. We would more than consider that. Because we fly the H–60 now.

Senator SHELBY. That is right.

Admiral BOORDA. We are looking very hard at the replacement for the H–46, with a view toward one basic type of aircraft for everything we do in the blue-suit part of the Navy. So that would go right down the line you are talking about.

Senator SHELBY. Not only is the technology available, but when you modify a system like the Blackhawk, to meet the Navy's specifications which are a little different, we are saving a lot of money, too.

Admiral BOORDA. Our goal is to reduce R&D costs and then to reduce life-cycle costs by having common spare parts, common pilot training, common lots of things.

Senator SHELBY. What basic issues would have to be resolved before a program like this could proceed to the procurement stage?

Admiral BOORDA. We are working now—and I will answer it for the record, because there are some technical and procurement issues that the Navy Secretariat deals with—but let me say that we are working now with a view toward seeing if this can be our program, because we would like it to be if it fits. We will have to do the cost/benefit-type work to make sure that this works.

[The information follows:]

Navy has determined through various studies and a recently concluded Cost and Operational Effectiveness Analysis (COEA) that replacement of the CH–46D with the CH–60 is a wise economic decision which will provide long-term force structure savings. Funding is in place beginning in fiscal year 1998 to purchase a vertical replenishment (VERTREP) replacement aircraft. The only unresolved issue is obtaining sole source authority to purchase the CH–60 so that a contract can be written between Navy and Sikorsky Aircraft Corporation to build a CH–60 engineering change proposal (ECP) modification package to be used for procurement against the Army Multi-Year V contract. This is the same method Air Force uses to purchase their H–60's for modification to the MM/HH-60G.

The COEA indicated that procurement of an airframe common to the Navy's current inventory of H–60's, such as the CH–60, could result in life-cycle savings of over $600 million in manpower and force structure. The CH–60 is an integral part of Navy's Helo Master Plan, the purpose of which is to reduce our inventory from six different type/model/series helicopters and associated logistics infrastructures down to two planned H–60 models, the SH–60R and CH–60. These two platforms will more cost effectively carry out all the missions of the current six platforms operating today.

Should Congress direct funding for the CH–60 prior to fiscal year 1998, Navy is prepared to conduct a risk reduction pre-production program using existing government furnished equipment assets (an Army Blackhawk airframe and Navy Seahawk components). The modified aircraft will allow us to perform an early operational assessment of the aircraft in helicopter combat support missions (VERTREP, Amphibious Search and Rescue, Vertical Onboard Delivery, Special Warfare support, Noncombatant Evacuation Operations, and Aeromedical Evacuation). This would make it possible to compress the program and have concurrent non-recurring engineering and procurement, and advance the purchase of the CH–60 by one year.

Senator SHELBY. Rather than just reinventing the wheel?

Admiral BOORDA. Exactly. The issue for me is I would like to get the costs down. I would like to have an aircraft that can do the job, pay as little R&D costs as possible—which this is attractive for—and then reduce the life-cycle costs.

Senator SHELBY. It must do the job and meet the mission requirements of the Navy, correct?

Admiral BOORDA. That is a given. If it cannot do that, we would not do it, and we need to do a little more work, but I think it will.

LANDING SHIP QUAY/CAUSEWAY [LSQC]

Senator SHELBY. I want to pose this last question to General Krulak. It deals with the landing ship quay/causeway [LSQC]. I understand that in 1992, this committee approved funding for a mobile offshore basing [MOB] program, which includes a landing ship quay. I am interested in the LSQC, and how it can fix your ongoing joint logistics over the shore [JLOTS] problem when moving combat equipment, personnel and materiel, into areas where no port or inadequate facilities exist, which the marines will probably come up against from time to time?

General KRULAK. Yes, sir; both the MOB and the LSQC have been looked at, at length, by the Marine Corps. We believe that both of them bear some continued looking. As a matter of fact, Mike Boorda and I have talked at length on the MOB. It has been also a point of discussion within the joint staff. Obviously, the ability to be able to put equipment ashore in an area where there is no port is critical to any kind of a landing. So we are looking at that, yes, sir.

Senator SHELBY. That is a very important priority for the marines or could be, is it not?

General KRULAK. Well, it certainly could be. We have right now, within the Maritime Prepositioning Force, the ability to offload what we call instream, which is an ability to offload equipment without any port. But if you have a capability, obviously, it increases your speed and your efficiency.

Senator SHELBY. Do you know, General or Admiral Boorda, how much money, if any, is included in the President's fiscal year 1997 budget for continuation of the MOB program, the mobile offshore basing program?

Admiral BOORDA. I will have to get you the number of dollars for the record.

Senator SHELBY. Can you do that, including the LSQC?

Admiral BOORDA. It is relatively small, because we are still at the exploring and deciding stage.

Senator SHELBY. OK.

Admiral BOORDA. But I will get you that for the record.

[The information follows:]

The fiscal year 1997 President's budget includes $10 million in RDT&E for Mobile Offshore Base.

Senator SHELBY. OK. Admiral, what are your overall thoughts on the need for an LSQC capability, especially in the light of the current limited capabilities?

Admiral BOORDA. I think we need to be careful that we do not always think we are going to go to a prepared place. We are sometimes guilty of planning the next war based on the last one we fought. That is an old cliche, but it is true.

Senator SHELBY. You thinking of the Marines in this vein, are you not?

Admiral BOORDA. Exactly. So I think that these issues, the use of a MOB, the question about more MPS ships, and JLOTS and offload on the beach are all good questions and vital ones for us to answer. I can tell you that there is no shortage of discussion on these issues inside the Department.

Senator SHELBY. Mr. Secretary, we are glad to have you here today. I will reserve some other questions when you will appear again. General Krulak and Admiral Boorda have been my focus today.

Mr. DALTON. Thank you, Senator.

Senator SHELBY. Thank you, Mr. Chairman.

Senator STEVENS. Thank you, Senator.

Senator Bond.

Senator BOND. Thank you very much, Mr. Chairman.

Mr. Secretary, Admiral Boorda, General Krulak, I join in adding my thanks for your appearance before us today to address the needs of the naval service. I am very much impressed with the information you have presented us, and I express our appreciation to the fine men and women whom you have the honor of commanding.

As you well know, this committee has long supported your service as best we could—sometimes despite the request that some of your predecessors have provided us. Some of us, however, on this subcommittee remain concerned that the Department of Defense, and the Navy in particular, have suffered dramatic cuts not only to their budgets, but to their future operational ability to meet the myriad of threats out there and successfully counter them. We have an obligation to support fully—and I mean fully—those we ask to don our Nation's uniform and risk their lives when we tell them to go into harm's way.

So I am very much concerned that we are sitting precariously on the edge of having a hollow force once again. I will be asking some questions, which I would like you to reflect on before answering. They will be dealing with your perceptions of the near-term future capabilities, based on the current request. I am not particularly interested at this juncture in grand procurement plans for beyond the year 2002. We need to make sure that our men and women are taken care of in the intermediate and near term.

I would like you to relate how you expect the naval forces that you command and control to be able to carry out their missions more than adequately until 2002 in light of some of the severe asset shortfalls predicted by the charts and figures even you all have to use to plan for losses due to obsolescence, accidents, and the minimal procurement policy in which we are currently engaged. If I may, with the ranking member's indulgence, quote once again what I heard him say several times in the last year, that we never want to see our military forces sent in, in an even fight, a fair fight. We want to make sure that we are totally, overwhelmingly, technologically superior.

T–39 PROCUREMENT

I am sure that you would agree that we, together, had better ensure that, without a doubt, we are the strongest, most intelligent, best-equipped force in the world. With that having been said, Admiral Boorda, last year, the committee provided the Navy with $45 million to fund a procurement of the T–39 trainer aircraft and ground simulators currently in use by the Navy, Marine Corps and, recently, the U.S. Air Force and even foreign nations undergoing training in the United States. I am concerned that the Navy has been sidetracked from the intent of Congress, which, by the way, was in concert with the Navy's position.

From a warfighter's perspective, would you be able to address for us the reliability, durability, and suitability of the T–39 airframe to conduct the naval flight officer training now and into the foreseeable future?

Admiral BOORDA. In a very short, succinct answer, let me say that the T–39 is a great airplane for what it is doing. It is in the Training Command now. We are using it to train our own pilots and naval flight officers and those of other nations, and in conjunction with the Air Force. I am very satisfied with the airplane.

F/A–18 PROCUREMENT

Senator BOND. Admiral, would an additional procurement of F/A–18C aircraft provide any benefit to the Navy's present or future inventory needs?

Admiral BOORDA. As we transition to the E/F models—and that transition is going to go well I predict, based on the program to date—we will still be flying the C model well beyond 2010. So if more money is available, buying more aircraft would make sense for us; it would allow us to transition other squadrons sooner. The issue for us is money, and we budgeted the best we could, given the money we had. Our emphasis now is on the E/F program.

Senator BOND. You have referred to the E/F program. Could you give us your current views on how that program is coming?

Admiral BOORDA. I was hoping you would ask me. Instead of giving you a good feeling about the program, let me give you some real numbers.

Senator BOND. All right, sir.

Admiral BOORDA. I think they will be useful. The aircraft flew in November—early. The airplane rolled out early in St. Louis, and we were all happy with that. It also flew across country to Patuxent River; two airplanes are there now—early. The airplane is on cost, both engine and airframe, and they are spending out at the rate we predicted. The aircraft is meeting all the performance specifications even though the program is happening quickly.

We also have an innovative acquisition program, where we are working during the test phase directly with Navy test pilots and contractor test pilots, so we find and resolve issues together and make it go faster and cheaper.

Between the 18th and the 23d of March, we flew nine flights with those two airplanes for 12.2 hours. We have explored the envelope that we were trying to explore at this stage and a little bit more. The cumulative flight summary for that airplane right now—and this is all early, which is really good—is 37.5 hours in the testing mode. The airplane is meeting all of the requirements. I think we have a winner here.

Do you want another figure or two to take home? It has been to 40,000 feet.

Senator BOND. You are on a roll. Let us not stop now.

Admiral BOORDA. The chairman will understand this. The airplane, in its first 37 hours, has been to 40,000 feet, 505 knots, Mach .94, at 4.5 G's. That is pretty good in its first month of flying.

Senator BOND. Thank you, Admiral.

AV–8B AIRCRAFT

General Krulak, have you altered the position of the Marine Corps regarding the need for upgrading the AV–8B? And if funds were made available, would you be in favor of accelerating or maintaining the remanufacture program, or is that program still working?

General KRULAK. The program is definitely working; we have definitely not lost our interest in the re-man program. We feel it is critical to allow us to reach the position where we can go into the ASTOVAL JAST. So we, obviously, would want to keep on track with that program.

We have, as you know, 10 currently in the program. That is what we could afford. If there were, obviously, more moneys available, we would seek to increase the buy.

Senator BOND. Thank you, General.

SLAM–ER MISSILE

Mr. Secretary, last year the committee provided the Navy with additional funds to effect an economical procurement of SLAM–ER missiles. Do you see any benefit to continuing the procurement of SLAM–ER?

Mr. DALTON. Yes, sir, we do. It is a good program, and we balance all our priorities and our objectives against the resources. But, yes, it is a good weapon system.

Senator BOND. Admiral, do you wish to comment on that?

Admiral BOORDA. The decision on SLAM–ER was one made mutually between DOD and the Navy when TSAM was canceled. We took the money that we had in TSAM, with the Air Force, and put it in SLAM–ER. It is now a weapon that we need.

Senator BOND. Well, thank you very much, gentlemen. I have some other questions relating to recruiting and some of the other things I know that we discussed that are of great importance to you. I will submit those for the record, without impinging upon the time of my colleagues further. I thank you very much for your very helpful testimony.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Cochran, I know you are here, but I had interrupted Senator Bumpers before. Do you wish to finish your time?

Senator BUMPERS. Yes; Senator Cochran is not feeling well. We will give him a little chance to get his adrenalin flowing. [Laughter.]

AIRCRAFT CARRIER PROCUREMENT

Admiral Boorda, we were talking before I went to vote a moment ago about the F–22, which, of course, is an Air Force fighter. As a prelude to that, let me ask you if these figures on these essential procurements are correct. No. 1, about $6 billion for an aircraft carrier and we want to buy one every 3 or 4 years; is that correct?

Admiral BOORDA. No, sir; we will buy them less often than that.

Senator BUMPERS. How often?

Admiral BOORDA. As we move into the next century, we are only going to request one more *Nimitz*-class carrier. We now have a program to begin looking at the CVX, which will be a different and more modern platform.

Senator BUMPERS. Would the cost be essentially the same?

Admiral BOORDA. I do not know.

Senator BUMPERS. And we have already discussed the F/A–18. We are talking about buying 1,000 of those. And at a cost of about how much each?

Admiral BOORDA. We have to decide what year we are talking about, but in 1996 dollars, about $43 million each when the airplane is at full production.

Senator BUMPERS. As I said earlier, my figures indicate we are going to spend a total of $84 billion in the program. I do not know whether that is in 1996 dollars or not.

Admiral BOORDA. It is hard for me to do it that way. I will give you something for the record in dollars so that we will all know what we are talking about.

[The information follows:]

The recurring flyaway unit cost for the F/A–18E/F, in fiscal year 1997 dollars, is $44.33 million (1,000 aircraft total procurement). This per unit cost includes: airframe, engines, armaments, CFE and GFE electronics. The total procurement costs for all 1,000 aircraft, in fiscal year 1997 dollars, is $59.56 billion.

JOINT STRIKE FIGHTER

Senator BUMPERS. Now, the Defense Department says that the new joint strike fighter is supposed to cost about $30 million each. Is that your understanding?

Admiral BOORDA. That is the goal, yes, sir.

Senator BUMPERS. And they want to buy 3,000 of them. Now, I have seen figures in the press that the program will cost anywhere from $350 billion to $700 billion for those 3,000 joint strike fighters. Now, somebody is really off the wall on this. What is your best estimate?

Admiral BOORDA. Well, basically, what JAST has to do for us—the JAST Program in the Department—is produce three airplanes with a lot—a huge amount of commonality. The idea of doing that is that if we can—just as we were talking about the Blackhawk and the H–60—if we can produce airplanes that have common avionics, common construction methods, common or nearly common engines, and lots of other things which are the same, we can reduce cost. That is what JAST is trying to do even as it comes up with the next generation airplane.

It is still in the formative phases of the program, so I would let the JAST Program and DOD talk to you about the dollars. But I can tell you that, for the Navy, it is an important program; we need a first-day strike fighter that we can use when the air defenses are still fully available to the enemy. That is where we would use it. Our buy of JAST is about 300 aircraft.

Let me defer to General Krulak, because, for the Marine Corps—and we are partners in this for sure, with them—the Harrier replacement part of JAST is a very important program.

Senator BUMPERS. General Krulak?

General KRULAK. Yes, sir; JAST is going to be critical to the Marine Corps. We have a neck-down strategy that will see the Marine Corps going to a single aircraft. That aircraft will be ASTOVAL strike fighter JAST. It will take the place of both the F/A–18C and D, plus the AV–8B sometime in the year 2010. So it is critical to us, sir.

Senator BUMPERS. Let me just shorten this, because I am taking too much of the time of the committee. What I am driving at here is whether we really want to go forward with the F–22 and the joint strike fighter and the F–18E/F. Now, do we have two prototypes right now of the F–22's? Does anybody know?

Admiral BOORDA. I am pretty competent talking about the F–18E/F, and I would like to stay there. Because I begin to speculate as soon as I talk about somebody else's program, and I do not think that is good.

F–22 AIRCRAFT

Senator BUMPERS. Senator Stevens says that it is not flying yet. The question, Mr. Secretary, boils down to are we making a wise and judicious decision to go forward with the F–22—which, as I say, that is an Air Force fighter and out of your bailiwick—but the question is, is it wise and a judicious use of our money to go forward with that when we are planning to buy 3,000 of these joint strike fighters and we are going to have enough F–18F's to last us—it will be the superior fighter in the world through the year 2015—we have plenty of time to make that decision.

Would you comment on that?

Mr. DALTON. Senator, I have a similar answer to the Chief of Naval Operations with respect to commenting on an Air Force program. I am just not familiar with the F–22.

Senator BUMPERS. Do you endorse the idea of a joint strike fighter?

Mr. DALTON. Absolutely. I am working closely with the Secretary of the Air Force and the service chiefs of these two outstanding services, as well as the Chief of Staff of the Air Force, to ensure that that joint strike fighter program works, because it is clearly in the interest of all three services. And I also want to point out that we are optimistic and very positive that the United Kingdom is going to participate with us in this. The Royal Navy has already expressed an interest.

So I think we are going to be able to reduce some of our per-unit production costs on the joint strike fighter. And I am pleased to have that allied input.

But I really am not in a position to comment on the F–22. I do know that I have great respect for the Secretary of the Air Force and the Chief of Staff of the Air Force and their judgment. And I think they would provide you with an excellent answer with respect to that.

Senator BUMPERS. Well, I will save this until they get here, Mr. Secretary, and visit with them about it.

Mr. DALTON. All right, sir.

SUBMARINE PROCUREMENT

Senator BUMPERS. Let me just ask one brief one, and one a little bit more involved, and then I will be finished. We are going to be buying 1.5 attack submarines a year at roughly $2 billion each; is that a fair statement?

Admiral BOORDA. No, sir; I think we would like to get the cost down below that, and we have to buy the submarines at a predictable rate. We will be buying one submarine a year for a while.

Senator BUMPERS. Could you tell me about how many you are shooting for of the present class?

Admiral BOORDA. We would like to have our submarine force be between 45 and 55. I believe, depending on the world situation and how things go, it is going to be closer to the top end. Eventually, they will all be the new attack submarine, just like now, they are almost all 688's. Then there will be a class that follows that or perhaps we will not need one—I hope—but I bet we will.

Senator BUMPERS. General Krulak, my last question.

Senator STEVENS. I thought that was your last question. [Laughter.]

Senator BUMPERS. You have to ignore him. That is the only way you can do it. [Laughter.]

General KRULAK. Sir, I do not ignore him.

Senator BUMPERS. I know that you know Gen. John Sheehan.

General KRULAK. Yes, sir.

DEPLOYMENT LENGTH

Senator BUMPERS. Last year he said something that I thought was very interesting. And this gets also into your bailiwick, Admiral Boorda, and I know you are familiar with what I am going to ask you about.

I will just quote this for the record, Mr. Chairman. Sheehan is the Commander in Chief of the U.S. Atlantic Command and NATO Supreme Allied Commander, Atlantic. According to Sheehan, the Navy needs to assess what the requirement is. And when asked two questions, "Why am I deploying this force for 6 months?" and "Why cannot I deploy this force for 3 months and then leave it in a homeport status?" Sheehan said there has to be a better way to do business.

He went on to say that "Right now, we use what I call historic deployment patterns. They have not changed since I was in the Mediterranean and in the Persian Gulf during the last 20 years." And he said that the process needs to be changed. Sometimes what happens is, we are deploying only because that is what is on the schedule, not because there is a real requirement.

And I will skip the rest of it. Would you comment on those statements?

General KRULAK. Yes, sir; I will. Jack Sheehan is a dear friend of mine. Friends disagree. And I disagree with him. If we were to use that mindset, when the call came to rescue Capt. Scott O'Grady, we may not have been there. When the call came to put carriers in the vicinity of the Taiwan Strait, they might not have been there. I think to try to second-guess the threat puts us into a real bad position. The one thing that we get from naval forces is, in fact, forward presence. We are out there so that when the emergency arises, the national command authority has a capable force that they can put in harm's way.

Senator BUMPERS. Admiral Boorda, you talked earlier about the morale problems of deployment in these carrier task forces. Here is a statement from the Wall Street Journal. It is not my favorite publication, so I will just throw it out for whatever it is worth. It says that the U.S.S. *Independence* will be at sea 340 days, I believe, as of July 1. Is that correct?

Admiral BOORDA. No; that is not correct.

Senator BUMPERS. I may have misread this. How many days do you anticipate the *Independence* being at sea?

Admiral BOORDA. She will have slightly better than 50 percent underway time. The reason was that she—it will be a little more than that—and the reason was that she was scheduled to be in port, and China and Taiwan had this issue. Those sailors and their families understand that when there is a real mission, that is why we exist.

Let me just add on to General Krulak's answer a little bit, and I would answer General Sheehan. Again, friends disagree and he and I are friends. But in the past 18 months, the reasons for having ships forward deployed are as follows: Cuba, Scott O'Grady, Bosnia, Haiti, Jordan, China, Taiwan, Iraq weapons inspections, North Korea nuclear weapons, and Iraq's movements south of 32-North. I think we need to be forward deployed.

Senator STEVENS. Senator, I really have to move on now to Senator Cochran.

Senator BUMPERS. Thank you.

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Thank you, Mr. Chairman. I do not talk very well this morning, so it will not take me long. I am going to submit most of my questions to the witnesses, but I did want to thank you for your cooperation and your availability to discuss these issues with us, and I thank you all for being accessible whenever we have questions on these matters.

I specifically am going to submit questions for the record on the shipbuilder program, the destroyer program, the LPD–17 program and others.

I want to ask you, though, about the Navy upper tier TMD system, the theater missile defense system, or the Navy theater wide program, which some call it.

When we passed the authorization bill this year, there were certain dates established in the bill for targets of reaching certain points of completion of an operational evaluation system, for example, to be completed by fiscal year 2001.

NAVY UPPER TIER

My question is, I notice that there is $58 million being requested for the Navy upper-tier program. Mr. Secretary, is this going to be sufficient to meet the target dates under the authorization bill?

Mr. DALTON. Senator, I do not know the answer precisely. I would be happy to provide it for the record.

I know that we think that our approach to theater ballistic missile defense is an important one. Lower tier we are fully funding, and upper tier is a priority as well. We debate this within the Department, and we do think that we have complied with the spirit of the law, but to precisely answer your question and in meeting those dates, I will provide that for the record.

[The information follows:]

$58 million in fiscal year 1997 funding for aegis theater wide is insufficient to meet the UOES and IOC dates directed by Public Law 104–106. The addition of $242 million in fiscal year 1997 could accelerate the current technical demonstration by approximately one year, to 2nd quarter fiscal year 2000. The addition of $242 million in fiscal year 1997, with similar funding levels throughout the FYDP, could deliver a UOES capability during fiscal year 2002.

Senator COCHRAN. I appreciate that.

Admiral Boorda, do you have anything you can add to that?

Admiral BOORDA. Let me say that what we have done with lots of discussion with OSD, the Secretary and I both looking at the program very carefully, money has been added to lower tier to move it at as rapid a pace as possible and then, due to affordability considerations for all of them, though, not just us, and some technical looks at other possibilities, there is less money in upper tier. You have the numbers right, so trying to keep one on track has caused another to slip slightly.

Senator COCHRAN. Let me ask you this. When we are providing these responses for the record, if you could, either the Secretary or the Chief of Naval Operations, let us know how much money would have to be added to the program if you find that there is a shortfall on meeting the target base, how much would have to be added to the program to keep it on the path to meeting the goals established in Public Law 104–106.

Admiral BOORDA. Yes, sir.

Senator COCHRAN. I have some other questions I will submit with regard to the demarcation discussions that are going on.

SEA DRAGON CONCEPT

General Krulak, we were talking recently about your warfighting laboratory down at Quantico and the Sea Dragon concept there. I wonder if you could tell us what you hope to accomplish with this in either funds requested in this budget submission to adequately fund that activity.

General KRULAK. Yes, sir; first, Sea Dragon is part of what we have at Quantico called the warfighting laboratory. It is an effort to what I would say to get to the day after tomorrow, not through a lot of thinking but a lot of action. It is a series of experiments that look at training and education, doctrine, tactics, techniques, organization, technology, and equipment; the idea being to equip the man vice manning the equipment, and doing it in a very logical manner.

We are looking at several experiments. The first one is called Hunter Warrior, which is ongoing right now. It is more of an open area terrain experiment with a special purpose marine air-to-ground task force with Mike Boorda and people coming from the sea, looking at warfighting in the 21st century.

The next series of experiments will be in the urban terrain. It covers chemical and biological defensive capabilities. It has to do with nonlethal technology, so there is a series of experiments that we are trying to look at in the future and how best to train and equip our marines to meet that future.

Obviously, the warfighting laboratory and Sea Dragon did not exist until I became the Commandant. That is not anything negative about my predecessor. That is just the reality. That was something that I instituted, and so to talk about having it in the program and fully funded, we are shifting money right now within the program.

Mike is being of assistance, certainly the Secretary of the Navy is being of assistance, and you will see Sea Dragon and the warfighting laboratory very, very predominantly in future submissions.

Senator COCHRAN. Thank you very much for that report.

Mr. Chairman, thank you.

Senator STEVENS. Thank you very much. I did not get into some of the things I wanted to discuss.

CV–22 AND SOCOM

General, I am concerned about the report that we have the CINC special forces, the Special Operations Command, indicating that that source is critical of the development of the CV–22 variant under the Navy-Marine Corps management program and indicated to us that that development was underfunded and the aircraft would not be capable at IOC. Have you reviewed that criticism?

General KRULAK. Sir, we have received that criticism. There are a lot of questions regarding the message that was produced that addressed that.

My personal feeling is that the requirements determination that have gone into the CV–22 have probably changed a little bit since the initial dollar figure was placed against the initial requirements.

I think that they are, and I have talked to the Assistant Secretary of the Navy for RD&A, Mr. Douglass. He is working very closely with the Air Force on this system. I believe as late as yesterday Mr. Douglass told me that they were very close to reaching agreement regarding requirements in the funding. Secretary Dalton, do you have anything more to add to that?

Mr. DALTON. Secretary Douglass has reported to me that he is working this program, and it is a matter of providing an aircraft that gets the job done.

It is also within the constraints of the additional funds available to assist in adding the enhancements to the aircraft, but I think they have almost worked that out, and as I recall the number is in the neighborhood of $550 million that has been allocated for that purpose. We are going to work it out and provide the aircraft that are needed for the Special Operations Forces.

Senator STEVENS. Well, with due regard for their operations, this committee kept the V–22 alive for the marines. It was a special aircraft to meet the needs of the marines, and really was to be integrated basically with the Navy.

The Special Operations Command, if they produce a variant that increases the cost so dramatically, as I understand, and that is what we have been told they would, and claim that the CV–22 is underfunded, as far as this committee is concerned we would be happy to restrict production for use by the marines.

I do not want to lose the V–22 because of people who decide suddenly that they should have been on board in the beginning. It was the marines who kept bugging us to produce this plane, or support this plane, and we did it for the marines.

Mr. DALTON. Mr. Chairman, we appreciate that support. I know the V–22 has been kicked around for 17 years, and it was the support of this committee and the Navy Department that would not take no for an answer. We have continued to move forward because it is the No. 1 priority for Marine Corps aviation for the future, and we are not going to get sidetracked.

We are going to move forward with the V–22 and produce it for the Marine Corps, and I am pleased that we are requesting funds to have the initial production of that aircraft in this year's budget.

Senator STEVENS. But if those funds are siphoned off now because the Special Operations Command has got a mission that was not defined at the time we were battling for this new system, I think we are going to be behind the eight ball.

We had indications that we would have a higher production level fly-away cost of not to exceed $60 million. If even at that cost, it is a high-cost operation, but the costs we are looking at now are above $100 million a copy. Now, that is going to kill the V–22 unless someone gets hold of it.

Mr. DALTON. We are watching that closely, Mr. Chairman. I can assure you, the V–22 program will go forward because it is the No. 1 priority of the Marine Corps, and we are not going to allow anything to sidetrack us.

General KRULAK. Sir, I can assure you that the V–22 that the Marine Corps will fly will be under $40 million a copy, not $100 million. We are working very hard on this program. We have the support of the Secretary of the Navy. It is our No. 1 priority for aviation, and there is no doubt about it, without this committee and without the Congress, we would have been in deep trouble.

SEA DRAGON CONCEPT

Senator STEVENS. Well, we supported the Comanche because we thought it would meet the special operations activities requirements, and I do not see any reason to change what you have been doing, General, so we would like to get some reports as to what is causing these increased costs for the special operations function that has suddenly entered this picture.

Let me shift over. I was interested when I heard this new program you devised, General, Sea Dragon. Have you talked publicly about that very much yet?

General KRULAK. Yes, sir; we have. We have done a lot of briefing both within the military community talking to my fellow service chiefs. Mike Boorda and I have sat down over breakfast and discussed what we are trying to do.

We had over 1,000 people from industry down at Quantico on the day we opened up the warfighting lab. We invited about 500. Over 1,000 showed up. It was standing room only.

It is not a candy store environment. We are testing and trying to get out to our marines, just as rapidly as possible, equipment and systems that will make them more survivable and more effective on the modern battlefield.

As I mentioned, we have experiments ongoing as we speak, being conducted by Lt. Gen. Tony Zinni and the marines of the 1st Marine Expeditionary Force. We are looking at the nonlethal capabilities that we might want to take into combat with us as well as what we call the deep battle, and how the Marine Corps will operate over extended space.

Senator STEVENS. Well, when you are ready for some observers to come look at Sea Dragon, let us know. I think we would be very interested in helping you pursue that. It is a concept we are looking for, how we can push forward in the next century with a better edge, a lower cost. It sounds like you are right on track. We appreciate that very much.

General KRULAK. Thank you very much, sir.

ADAK REUTILIZATION

Senator STEVENS. I have one last question, and I have to come back to my own business now for a little bit.

I do thank you, Mr. Secretary, and the Navy, for the support of the summit we held in Anchorage on the future of Adak. I know you went out there too, General, but unfortunately because of the weather in my State I was snowed in in Juneau and did not make the summit myself, but I was told—I did call in and made a statement to them, but I am told it was very successful and we are now really moving forward with a concept of reuse, and the State legislature is reviewing now a bill to create an Alaska reuse authority, which is really envisioned by the Federal law, but I do thank you for your support.

What came to us recently, Mr. Secretary and Admiral Boorda, is that we have several commercial enterprises that have indicated that they would like to come in and transition while the Navy is still there.

I do not know whether that has ever been done, but there are some facilities that you might actually put into cold weather condition, preservative condition, that they could really have a contract on for a short term to manage and operate, with the understanding that whoever takes over after the Navy leaves would have to prove the continued utilization, but at least we see a chance to facilitate the maintenance of more of the facilities in the reuse mode if we could initiate some sort of commercial activity before the Navy turns the last key. Are you willing to examine that?

Mr. DALTON. Absolutely, Mr. Chairman. We have made a priority of reuse for these facilities that are affected by BRAC, and it was a good conference that you referred to.

Mr. Cassidy has given me a report, and it was a very positive report on what happened there. We are certainly open to consideration of anything that makes sense, and what you are proposing seems to have a lot of merit.

Senator STEVENS. Have you done this before? Are they asking for something that is going to require a new law, a new legal basis?

Mr. DALTON. Mr. Chairman, I do not recall our doing anything like you have described specifically, but our whole goal is to be flexible and to end up with a reuse that makes sense for the community, and to cooperate to the maximum extent possible to do whatever we can to assist the local communities.

I will be happy to consider this request. I do not think it violates any law.

Senator STEVENS. As I understand it, the Navy is going to be there until about January 1998.

Mr. DALTON. Yes, sir; that is right.

Senator STEVENS. It is not an easy time to leave a place like Adak, but I do think that if we could find some way to transition to get some people in there while you are still there, it might be easier for everybody, including the Navy. Would you mind letting us know if your legal people think there is a lack of authority to do what is asked of you?

Have you done that anywhere else? Before the base is closed, have you allowed commercial operations on it?

Mr. DALTON. I do not recall doing that, Mr. Chairman, but as I say, we will certainly look at it, and if it seems a reasonable request I will confer with our legal folks and see if that is something we can do.

ARSENAL SHIP

Senator STEVENS. I would be remiss, Admiral, if I did not talk to you a little bit about the arsenal ship. We have a picture of it here in your report, which I was looking at today. Without being facetious, it looks like putting a lot of eggs in one basket. How many of those would you plan to have?

Admiral BOORDA. Well, the arsenal ship is a concept right now, but it is becoming a program. We have reprogrammed some money to do that, begin to look at it this year, and it is a program for next year.

The picture there is notional. There are lots of pictures. The whole idea is to try to get a force multiplier that does, in large respect, what gunfire support or surefire support ships have done for us in the past, which is, support troops ashore, General Krulak's people and other services people, but also provide more precision capability from the sea.

It could work theater ballistic missile defense, because what we have done is, we have vertical launchers now, and vertical launchers can launch lots of different kinds of weapons. As the weapons mature, we can change out what we put in the ship without changing out the ship, so it is a way to do things cheaper and more effectively.

I do not imagine that we would want to build a lot of these ships. I think probably at this time we are talking about six or seven.

We are talking about a design that is relatively inexpensive when you look at other warships, so that we take advantage of what we did at Mountain Top. We say to the warfighter ashore, you tell us where you want the ordnance delivered, we will put it in the computer on the ship and deliver that ordnance, not anything fancier than that. Really, that is what the battleship used to do, except now it is going to do it at longer range and with more precise weapons.

I see a small crew on these ships, something on the order of 50 or so. That is achievable. Shipbuilders now tell me that is achievable, provided we do not get too optimistic about what we want this thing to do, and that means that the ships would stay deployed and the crews would go join it and then come home, so we get maximum use out of the ships and we do not have to buy so many.

I think that is a reasonable approach. There is a lot more work to do on it, but I think it is attractive. I think it is a force multiplier for us. It helps with the kinds of things that Senator Bumpers was talking about.

Senator STEVENS. Well, we will be happy to proceed with you in reviewing it.

When I first saw it, I wondered why, if we are talking about these unmanned—what do they call those little planes, UAV's, and you are dealing with a concept of trying to put more missiles in a position where they can support forces ashore, why are we not thinking about some kind of unmanned craft that you can set loose from a larger vessel and not put all your eggs in one basket?

Admiral BOORDA. We are, in fact, looking at Predator and other UAV's to be marinized. It requires changing the fuel, changing the engine slightly.

Senator STEVENS. I am talking about little ships.

Admiral BOORDA. We had not thought about that, to be quite honest.

Senator STEVENS. Any other questions?

Senator INOUYE. Mr. Chairman, I would like to submit my questions, but if I may most respectfully suggest we invite the Air Force to respond to the F–22 question, because we do not want to cause any friction.

Senator STEVENS. We will, and we will look for a comment from the other service about the special operations requirement, too.

ADDITIONAL COMMITTEE QUESTIONS

We do have some questions. Senator Domenici was kind enough to take a task I had on the floor, so he has not been here, and I apologize for him, but in particular his questions we would like to submit for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY JOHN H. DALTON

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

MULTI-YEAR AUTHORIZATIONS

QUESTION: I understand the Navy would like to stabilize its DDG-51 program by buying an average of three DDG-51's per year, thus the four destroyers requested this year to complement the two funded last year. However, the Navy's outyear plan contains only two ships in FY98 and three in FY99, thereby breaking that 3 ships/year average and not procuring the ships at the most economical rate. I understand that the Assistant Secretary of the Navy for Acquisition, Mr. Douglass, told the Armed Services Committee recently that he'd like to see $875 million added to the shipbuilding account this year for advance procurement for three DDG-51's in FY98.

If there is additional funding available above the budget request for FY97, would you be in favor of stabilizing DDG-51 procurement at an average rate of 3 ships per year and, if so, is $875 million in long-lead funding for FY98 the right amount to add to the FY97 budget request for that purpose?

ANSWER: Acquisition of 3 DDG-51's per year would provide needed stability to the program. With regard to the above quoted figure, the marginal cost of an additional FY98 ship is $750 million. This ship could be procured in either of two ways:

(1) An FY97 appropriations increase of $750 million could be used as advance procurement for a total of three FY98 ships. These funds would be provided to the shipbuilders for production planning and material ordering, and for hardware procurement for three DDG-51 Class ships in FY98. No additional FY98 funding would be required.

(2) A second alternative is to provide $106 million in FY97 advance procurement funding to provide production planning, material ordering, and GFE procurements for only the additional (third) FY98 ship. This is similar to the six-ship acquisition plan which Congress authorized for FY96-97. The balance of funding, $644 million for the third FY98 ship, would be required to be added to the budget request in FY98.

NAVY UPPER TIER

QUESTION: Congress established FY 99 as the UOES date and FY 01 as the IOC date for the Navy Upper Tier system in the FY 96 authorization bill, P.L. 104-106, which the President signed into law on Feb 10. The FY 97 budget request contains $58M for the Navy Upper Tier program. Is $58M sufficient to comply with the dates specified in P.L. 104-106 for the program? If not, how much money would have to be added to the program in FY 97 to keep it on the path to achieve the dates specified in P.L. 104-106?

ANSWER: $58 Million in FY-97 funding for AEGIS THEATER WIDE is insufficient to meet the UOES and IOC dates directed by P.L. 104-106. The addition of $242 million in FY-97 could accelerate the current technical demonstration by approximately one year, to 2nd quarter FY-00. The addition of $242 million in FY-97, with similar funding levels throughout the FYDP, could deliver a UOES capability during FY-02.

QUESTION: Some are concerned, as most recently expressed by the Under Secretary for Acquisition, Dr. Kaminski, that the LEAP kill vehicle for the Upper Tier system might be too light, thus lacking in lethality. What specifically is the Navy doing to modify the heavier THAAD kill vehicle to make it compatible with the Navy Upper Tier booster? For example, is the Navy investing in the development of a solid-fueled divert and attitude control system for the THAAD kill vehicle? My expectation is that Congress will add funding to the Navy Upper Tier program again this year, as it has in each of the last 2 years. If this is the case, would the Navy support adding funding to make the THAAD kill vehicle compatible with the Navy Upper Tier booster.

ANSWER: Navy believes the LEAP kill vehicle has sufficient lethality to meet AEGIS THEATER WIDE operational requirements against expected threats. To address LEAP lethality concerns against some threats which could possibly emerge, Navy is assessing Kill Enhancement Devices (KED) for LEAP which will provide for improved lethality against certain classes of warheads. Concurrently, as part of the ongoing Joint Upper Tier System Engineering Team, Navy and BMDO are assessing the potential contribution of other kill vehicle technologies including THAAD.

TMD

QUESTION: The most expensive part of any TMD interceptor is its kill vehicle. As the Defense Department cut several billion dollars this year from TMD programs over the outyears budget , wouldn't it make sense to economize by seeing if the heavier, more lethal THAAD kill vehicle can be modified somewhat and used as the common kill vehicle for both the THAAD and Navy Upper Tier interceptors?

ANSWER: The assessment of the optimum kill vehicle (KKV) for Navy's Theater-Wide Program will encompass several areas of evaluation. Factors such as lethality, cost, integration, commonality with other Navy missile systems, and operational performance are to be considered. Significant funds have already been expended to develop LEAP technology, first as part of the SDIO program, and more recently under BMDO direction. The high speed exo-atmospheric intercept velocities achievable by the AEGIS/LEAP system provide operational advantages, enabling Navy to provide regional defense for less cost than other alternatives. Although there are advantages, the interceptor's exo-only limitations may result in reduced effectiveness. In order to determine the most effective and cost efficient KKV, BMDO is conducting an evaluation of candidate KKVs. The BMDO Joint System Engineering Team will evaluate various alternative kill vehicle technologies under development to include those being developed in the LEAP, THAAD, Atmospheric Interceptor Technology (AIT), and Exo-atmospheric Kill vehicle (EKV) programs. The KKV assessments will identify the most effective and cost efficient technologies for further risk reduction activities and inclusion into a Theater-Wide tactical interceptor.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

QUESTION: Secretary Dalton, I know that over the past two years, the Navy has had a number of very successful telemedicine initiatives, with recent emphasis on teleradiology and the use of computed radiology onboard the USS GEORGE WASHINGTON. I believe these technologies are having a significant impact on the ability of our operational commanders to meet their mission as well as providing a high level of quality health care to our Sailors and Marines.

Could you tell me the Navy's future plans for fielding teleradiology and computed radiology technology throughout the Navy fleet?

ANSWER: We are very proud of our successful telemedicine initiatives using teleradiology and computed radiography aboard the USS GEORGE WASHINGTON as well as our shore based successes from Zagreb in 1994 and more recently from Antarctica. The impact of computed radiology on readiness and the improvement in health care delivery has been far greater than initially anticipated. We are seeing an immediate payback in both the readiness of the Navy's operational forces and our ability to protect the health of our military personnel. Our plan is to provide teleradiology and computed radiography capability to our aircraft carriers, large-deck amphibs and command and control ships as well as to our overseas and remote continental US medical facilities as soon as possible within the limitation of our available resources. We have identified telemedicine/teleradiology as one of the funding issues to be considered during the Fiscal Year Program Objective Memorandum (POM) process. During the remainder of Fiscal Years 1996 and 1997, we will continue to develop and test a wide variety of telemedicine ad computer-based initiatives, in order to better understand the requirements for global deployment and support of this technology. We have found it to be equally important to maintain a parallel effort in structuring our teleradiology and computed radiology support capabilities in our tertiary care hospitals at Bethesda, Portsmouth and San Diego. These facilities will serve as "Catchers Mitts" to our carriers, amphibs, command and control ships, remote and overseas medical facilities, and as mutual support to each other. We fully expect to increase our operational knowledge and understanding of interconnecting our military treatment facilities and operational forces so that the "Catchers Mitt" concept can be expanded to our Naval Hospitals at Jacksonville, Pensacola, Great Lakes, Naples, Rota and Okinawa. These shore based efforts are providing us with a test bed for developing an understanding of medical interoperative consultation using portable camcorders, transmission of real-time ultra-sound exams, and connection to medical diagnostic instruments such as endoscopes, otoscope/opthalmoscope units, and dermatologic microscopes. Ultimately we believe telemedicine technology will contribute to the formation of a single, worldwide computer-based patient record for every DoD beneficiary, including forward deployed forces.

F-18 READINESS

QUESTION: Secretary Dalton, at today's hearing you testified that, "Navy Department readiness is where it should be" and that all Navy units are "indeed ready." Please give me your views on the approximately 155 F-18s at continental US Navy bases that are currently incapable of flight operations due to missing engines or other parts.

ANSWER: Deployed Navy units are indeed ready to perform the missions assigned, however there are some CONUS non-deployed aircraft that are not presently in flight status. The components causing the unavailability are being worked and the projected get well dates for the top ten readiness degraders is scheduled for 12/98.

QUESTION: Secretary Dalton, why did the Mission Capable rates released by the Navy fail to disclose the low MC rates apparently being experienced by F-18 units in the US?

ANSWER: The MC rates reported for non-deployed units are an aggregate of all non-deployed squadrons. All non-deployed F/A-18 units are not expected or intended to be maintained in similar states of readiness with regard to MC rates.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

PMRF CLAIMANCY

QUESTION: Mr. Secretary, I understand that PMRF is managed by Commander of Naval Air Forces in the Pacific, or AIRPAC. However, AIRPAC uses less than ten percent of the range time. Do you believe this management structure adequately ensures that the range's needs are addressed?

ANSWER: The Tactical Training Ranges (TTR) are dedicated to Department of the Navy tactical training and accordingly are under the claimancy of the Commanders-in-Chief, U.S. Pacific and Atlantic Fleets. In each case , the Fleet Commanders have designated their aviation Type Commander (Commander Naval Air Force, U.S. Pacific and Atlantic Fleets) as executive agent for all tactical training ranges within each respective claimancy. Funding for operation and maintenance (O&M,N) of the TTRs is provided from the range resourse sponsor within the Office of the Chief of Naval Operations (N889) to the Fleet Commanders. The N889 TTR Action Officer billet is filled by a Surface Warfare Officer who ensures the surface and subsurface communities, and the ranges they use, are fairly supported by the aviation Type Commanders. Additionally, this officer is the range budget coordinator for all air, surface, and subsurface range budget line items including RDT&E, OPN, APN and OMN.

QUESTION: Secretary Dalton, do we need to revisit how the Navy sponsors its ranges, like PMRF, which uniquely supports a balanced mix of test and evaluation and training?

ANSWER: PMRF was transfered from NAVAIRSYSCOM to CINCPACFLT claimancy in FY 1992 as an outgrowth of the USN plan to reorganize the Navy's RDT&E, engineering and fleet support operations for increased efficiencies. PMRF is primarily a Fleet training range. The Navy recognizes that PMRF is used for T&E of weapons systems and therefore will continue to augment the range with instrumentation required for test purposes on an as needed basis. The management of all training ranges under one Resourse Sponsor with CINC claimancy and designated Type Commanders as the CINC's executive agent creates efficiencies. Therefore, the current method of sponsoring the Navy's ranges is deemed most effective.

QUESTION: Secretary Dalton, could you assure me that you will study this matter so that all ranges are given equal consideration and adequately funded?

ANSWER: The Defense Test and Training Steering Group (DTTSG), which provides oversight of all service's training and Test & Evaluation ranges, ensures that the training ranges are given equal consideration and adequate funding. The Principle Deputy Under Secretary of Defense (Acquisition and Technology) signed the charter for the DTTSG on 8 June 1995. The group will formulate initiatives that streamline and improve the productivity and effectiveness of training and test resource management and the conduct of test and evaluation. This includes formulating policies that affect inter- and intra-service managment of taining instrumentation and test investment resources (e.g., facilities, ranges, targets, models and simulators); and recommending consolidations, closures, lead Services, and joint development and procurement of assets. The Navy and Marine Corps each provide both training and T&E representatives to the DTTSG to make sure service-unique requirements are addressed.

SEA ROTATIONS

QUESTION: Secretary Dalton, what is the overall Navy's view regarding time away from home? Is this a concern or just a fact of life for those in the sea services?

ANSWER: Time spent away from home is a fact of life in the Navy. The nature of tour business requires personnel to be away on deployments, and in training for the required periods. However, Navy monitors very closely the time units are away from home. This has been a great concern from Admiral to Seaman for many years. With the CNO's main objective to limit time away from home whenever possible, Fleet Commanders have aggressively sought opportunities to lessen deployment lengths. One specific example is the EISENHOWER Battle Group which returned from deployment in April 1995. Through the keen foresight of the Battle Group Commander and the Fleet Commander, an opportunity was developed which allowed IKE and all of her escorts to return to their homeports 3 days earlier than scheduled. That effort, put forward by the commanders at sea, permitted almost 10,000 Navy personnel to be home at the start of the Easter weekend, where they would have otherwise been at sea. This type of proactive leadership is repeated daily in both Fleets, whether for 6 month deployments, or much shorter periods at sea. Navy's philosophy is to go to sea when required, but not to remain at sea longer than the mission demands.

AEGIS

QUESTION: Mr. Secretary, we often look at the smaller size of today's fleet and forget that you have many more capable ships today than 10 years ago. Can you tell us what the capability of the AEGIS cruiser and destroyer does to offset the smaller size of the fleet?

ANSWER: TICONDEROGA Class AEGIS Cruisers and ARLEIGH BURKE Class AEGIS Destroyers are the most capable surface combatants in the world. Ten years ago there were only five TICONDEROGA class cruisers at sea, and no ARLEIGH BURKEs. Today there are 27 cruisers and 14 destroyers in the fleet. Both of these ship classes are built with the AEGIS Weapon System (AWS) which features improvements over earlier classes of combatants in quick reaction time, high firepower, and improved Electronic Counter Measures (ECM) resistance for sustained multi-mission operations in open ocean and littoral environments. The AWS is the heart of an integrated combat system that provides area coverage and command/control focus in all dimensions of Navy Warfighting and Joint Military Operations. AEGIS ships are more survivable, and bring more firepower than the surface combatants of ten years ago, and they possess a significantly greater command and control capability.

The AEGIS destroyers requested this year will continue to incorporate Flight IIA warfighting improvements, improved surface-to-air missiles (SM2 Block IV and Evolved Sea Sparrow Missile), embarked

LAMPS MkIII armed helicopters and the Battle Force Tactical Trainer, essential to keep operators combat proficient in operating the integrated AEGIS combat system. Selected cruisers and destroyers will also receive other essential improvements such as the AN/SPY-1D(V) Littoral Radar upgrade, Cooperative Engagement Capability and Theater Ballistic Missile Defense capability.

Ships carrying the AEGIS system are vastly more capable and offer far more flexibility to counter today's threats and keep pace with future threats. However, we must also be mindful of the heavy demands we regularly place on this element of the force due to unforeseen requirements, manifested in increased OPTEMPO and wear and tear on these limited assets. Regardless of how often ship systems are modernized, the overall maximum service life of a ship of this class will remain roughly 30 to 40 years. While we can, and do, keep our capabilities up to date by modernizing, the only sure way to ensure we maintain adequate numbers of ships to support our commitments is to build new ships.

In order to relieve some of the stress being experienced by the active force as a result of ongoing contingency operations, Navy will; on an interim basis, continue to retain some FFG-7 frigates beyond their projected service lives. The selective retention of some frigates will be done both to maximize our currently available assets, and to ensure we stay within OPTEMPO and PERSTEMPO goals.

V-22

QUESTION: Mr. Secretary, I am concerned with the price of the V-22. Can the Navy allocate more resources to the program over the next five years to reduce the unit price?

ANSWER: Navy is certainly interested in procuring the V-22 at a rate which would lower the unit price, as would be the case for other aircraft in the avaiation procurement plan. Navy and Marine Corps priorities are balanced within available resources. The V-22 is an airccraft we would like to procure as fas as we can afford to, and we are looking at the best and most efficient way to do just that in the next five years.

MODERNIZATION DEMANDS

QUESTION: Mr. Secretary, in your posture statement you list acquisition reform, savings from base closings, and overhead savings as the primary ways you will get the money you need for your modernization programs.

Do you think these will be sufficient, or will the Navy budget need to be increased to provide necessary modernization?

ANSWER: Success in these three critical areas are necessary if the nation is to recapitalize its maritime forces, but they are not sufficient on their own. The DoN really needs Congressional help in the near-term, both to remove statutory barriers that hinder initiatives aimed at reducing the high costs of support as well as allowing us to increase procurement rates in the current budget years. In the area of helping to reduce support costs, I have in mind an easing of restrictions against adjustments to levels of in-house versus contractor depot maintenance, a need to allow privatization of additional functions -- such as fire fighting and security guard functions, and other procedural hurdles that serve to delay and complicate outsourcing decisions.

In terms of additional procurement, the current budget builds towards the higher levels of procurement deemed necessary by SECDEF and the Joint Staff in the later years of the FYDP. The task of scaling this outyear "bow wave" would be made easier if the DoN were able to attack and fund these higher levels of procurement earlier. Additions to the New Attack Submarine, LPD-17, DDG-51 and CVN-77 programs are the top 4 priorities here.

QUESTION: Mr. Secretary, is it the Department of the Navy's position that it require additional procurement funds in fiscal year 1997 to meet its modernization objectives?

ANSWER: The budget request currently before Congress represents trade-offs between competing demands of near-term readiness and long-term modernization. Investment sacrifices have been made, and these necessary choices have delayed planned dates for reaching many modernization objectives. Additional fiscal year 1997 procurement funding certainly would help, but the DoN can execute its current missions given the funds requested in the fiscal year 1997 budget submission. Increases now, however, would help diminish the magnitude of increases necessary in fiscal years 2002 and 2003.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

QUESTION: Several GAO reports have indicated that there is a serious problem with inventory management in the Department of Defense. There are 20-year or even a 100-year supplies of some items. The cost of storing overstocked items ranges from $100 million to $1 billion per year. What has the Navy done to address this issue?

ANSWER: Navy has been extremely successful in implementing an inventory reduction strategy that has significantly reduced spare part inventories, while continuing to fully support operational readiness. The wholesale inventory initiatives listed below have resulted in a 45.6% reduction in inventory over the period of 1989 through 1995. These reductions have been achieved through a variety of policy changes and process improvements such as:

a. Eliminating intermediate level inventories
b. Implementing Readiness Based Sparing for planeside/shipboard allowances
c. Reducing acquisition lead times
d. Reducing safety levels
e. Emphasizing disposal of obsolete and surplus material

Navy continues to leverage trade-offs among inventory, transportation, and weapon systems availability as keys to our low risk inventory strategy. Paramount to reducing inventories is our ability to ensure that changes in inventory do not adversely impact our support for Fleet customers and unit readiness.

QUESTION: The General Accounting Office has also reported that the Department of Defense has problems managing its accounts. For instance, contractor overpayments and underpayments waste millions of taxpayer dollars each year. What has the Navy done to improve contract management? How is the Navy applying the best practices of private industry?

ANSWER: The Department of the Navy (DON), in conjunction with the Defense Finance and Accounting Service (DFAS) Columbus Center, has initiated a number of actions to improve the accounting and reporting of contract payments. The DON acquisition community is now reviewing problem contracts to identify deficiencies in the preparation of contracts. The results of this review will be coordinated with DFAS Columbus in an effort to strengthen the contract writing process.

In a related initiative, the DON acquisition community met with DFAS Columbus and DCMC to identify contract writing problems. As a result of that meeting, a Standard Contract Writing Guide was developed for DON use. Additionally, the Naval Sea Systems Command, is developing an automated contract writing system. The automated contract writing system will provide single source data entry and will interface with accounting and payment systems. This new contract writing system will be exported to other DON major commands later this year.

In an effort to identify systemic problems, DFAS Columbus and the Assistant Secretary of the Navy (Research, Development and Acqusition) have developed a plan to visit four DON activities that have the most problem contracts. When a systemic problem is identified, the review team will develop a corrective action and train the activity personnel to avoid this situation in the future. Each site visit is scheduled to last approximately three months.

DFAS Columbus has developed an interface between MOCAS (payment system) and the Standard Accounting and Reporting System (STARS) to provide line of accounting data based on the obligation record in STARS. This enhancement will eliminate key punch errors and will automatically provide a line of accounting when the contract number information is entered.

When fully implemented, these corrective actions will enhance DON's accounting control over contractor payments.

VERTICAL LAUNCH ASROC (VLA)

QUESTION: Until FY1994 the Navy requested funding for the Vertical Launch ASROC (VLA). That year the Navy insisted that the ‘rock bottom’ requirement was 40 VLA missiles per year through 1999. Why has the Navy left VLA missiles out of the budget since then?

ANSWER: Because of the continuing budget constraints the Navy has reevaluated its VLA requirements. The Navy currently has sufficient assets to meet the shipfill/warfighting requirements in the Non-Nuclear Ordnance Reqirements (NNOR).

QUESTION: Is the current number of VLA missiles adequate? Please assess the implications for training, readiness, and anti-submarine warfare in littoral waters.

ANSWER: There are sufficient VLA missiles to meet the Non-Nuclear Ordnance Requirements (NNOR) requirement, which is derived from the current threat. Additional missiles could be used to enhance training and to refine the employment of the newly deployed VLA missile. Unfortunately, in a budget constrained era, other higher priority needs would have to be sacrificed.

QUESTIONS SUBMITTED TO ADMIRAL J.M. BOORDA

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

T-AGS 64 OCEANOGRAPHIC SHIP

QUESTION: $16 million was included for advance procurement of a T-AGS 64 oceanographic research vessel in the Fiscal Year 1996 appropriations bill. The $54 million necessary to complete construction of the ship is not included in the Fiscal Year 1997 budget request. If there is additional funding above the budget request available for Fiscal Year 1997, would Navy support adding the $54 million to procure this oceanographic research vessel?

ANSWER: The President's Fiscal Year 1997 budget does not include funds for an oceanographic ship. The Department of the Navy supports the President's Budget request. The Future Years Defense Plan contains sufficient funding in Fiscal Year 1999 to complete construction of T-AGS 64 under a stand-alone contract competition. If there is additional funding above the budget request available to support the procurement of an oceanographic vessel in Fiscal Year 1997, Navy could procure this ship as an option buy under an active T-AGS 60 class construction contract.

NAVY UPPER TIER

QUESTION: Senate Republicans have expressed concerns that the current US proposal on demarcation, as described by a *Washington Times* article of February 26 -- the accuracy of which has been confirmed by the administration -- could lead to the end of the Navy Upper Tier program. There has been rumor of some "understanding" on faster systems, however, between the United States and Russia, which would allow the Navy Upper Tier program to continue subject to our own compliance determinations. According to a *Washington Times* article of March 14, the lead Russian negotiator, General Koltunov, has made it abundantly clear that no such understanding exists.

1. Admiral Boorda, if an agreement is reached on the slower systems which is based upon an interceptor velocity limit of 3 kilometers/second, would the absence of such an "understanding" on the faster systems or any explicit protection for the Navy

Upper Tier system in the agreement cause you concern about our ability to deploy Navy Upper Tier in the future?

2. Won't future compliance reviews have to be done on the Navy Upper Tier system?
3. Won't those compliance reviews have to take any agreement on the slower systems into account?

ANSWER: The United States has explicitly informed the Russians and the other states participating in the demarcation discussions that in the absence of an agreement clarifying the treaty's obligations regarding non-ABM systems, the sides will continue their long-established practice of making their own good-faith compliance determinations based on the relevant provisions of the ABM treaty. In keeping with this principle, the Administration unilaterally certified the Navy Upper Tier System as compliant in 1995. Based on that certification, combined with the Administration's stated position that the United States will continue to conduct its own compliance determinations in the absence of a negotiated demarcation agreement, we are able to deploy Navy Upper Tier as presently certified.

Future compliance reviews could be conducted under certain circumstances. Article Vi(a) of the ABM Treaty requires that non-ABM systems not be given capability to counter and not be tested in an ABM mode (TIAM). The existing determination certifies that Navy Theater Wide (NTW) will not have the capability to counter, but could not certify TIAM compliance because no test program is yet defined. A formal certification regarding TIAM will therefore be required at an appropriate time, but should be routine since there are no plans to test NTW in an ABM mode.

Subsequent compliance reviews could also be required if the ultimate capabilities of NTW differ significantly from the baseline configuration that was the subject of the Administration's January, 1995 certification.

Finally, with respect to agreements on slower systems, the Administration's position is that any agreement limited to slower systems would in no way prejudice development or deployment of faster systems. Based on that determination, and the knowledge that Upper Tier has been certified as compliant with the Anti-Ballistic Missile Treaty and that Upper Tier is envisioned as being faster than 3 kilometers per second, I would have to say that I do not believe these compliance reviews would be bound by an agreement on slower systems.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

EA-6B

QUESTION: What is the status of the upgrades planned for the EA-6Bs in order for them to meet the Air Force electronic warfare mission?

ANSWER: The EA-6B is fully capable of supporting the Air Force mission today. While the Navy is planning to upgrade the EA-6B, all modifications meet both services needs. Costs incurred unique to the Air Force mission are limited to procurement of additional ground support equipment for maintenance and mission planning which will allow land based Navy EA-6B squadrons to complete all maintenance tasks and planning as are currently done when embarked aboard the aircraft carrier. This type of equipment is already in use by Marine Corps EA-6B squadrons, and additional sets are being purchased to support the new land deployed Navy squadrons.

QUESTION: Will there be any loss of warfighting capability in the Air Force once the EA-6Bs have replaced the EF-111As?

ANSWER: No. The EA-6B is a more capable jamming platform and is already performing the EF-111A mission. The total inventory of 126 EA-6B aircraft is sufficient to fulfill joint requirements through 2015.

QUESTION: What are the impacts on range and loiter capability as they relate to the Air Force mission?

ANSWER: The EA-6B is a joint asset tasked by CinC's to respond to specific war fighting requirements. The current joint mission consolidation concept of operations meets all CinC requirements, including range and loiter capability, through increased force structure, warfighting upgrades and tactics.

QUESTION: What are the tradeoffs in protective capability if the range of the EA-6B is extended, and to what range could an EA-6B be extended in comparison to the EF-111As?

ANSWER: The range and loiter time of the EA-6B can be extended to meet all CinC war fighting requirements without any trade off in protective capability. Although the joint staff determined range and loiter time are not issues, mission consolidation concept of operations includes an increase in force structure and war fighting upgrades to the EA-6B which are designed to meet the CinC's war fighting requirement.

QUESTION: How does this range compare to today's and future AF deep attack forces? At those required ranges will the EA-6B have the needed loiter time to adequately protect friendly forces?

ANSWER: Today's electronic attack forces, including EA-6B jammer aircraft, meet CinC developed war fighting range requirements. To support attack force requirements, the combination of tanking and increased force structure enable the EA-6B to meet war fighting requirements, including extended loiter times.

QUESTION: Due to the obvious speed differences between the EA-6B and the EF-111A, what are the impacts on the effectiveness and flexibility of Air Force attacking forces?

ANSWER: The difference in speed between the EA-6B and EF-111A is not an issue to support the war fighting CinC's requirements for electronic attack, in particular, for the tactical airborne jammer. A concept of operations has been designed to meet CinC war fighting requirements. In the next two years, the increase in EA-6B force structure and war fighting upgrades, coupled with tactics, meet CinC's major regional conflict requirements.

QUESTION: What is the total cost of all the upgrades for EA-6Bs including the cost of restoring some EA-6Bs to operations status to meet the new Air Force requirements?

ANSWER: While the Navy is planning to upgrade the EA-6B, all modifications meet both services needs. No specific EA-6B requirements unique to the Air Force mission have been identified.

The EA-6B currently exists in two versions, Block 82 and Block 89. The distinction between the versions is primarily in logistics and maintenance support; both are equivalent in warfighting capability. The Navy is updating both versions to a common Block 89A version, a program that was planned prior to assumption of the Air Force mission.

The additional aircraft added to the inventory, because of the Air Force mission, would have stretched the Block 89A modification by another year. To mitigate this impact of 24 more aircraft modifications, the Navy received $100 million in FY 1996 Congressional plus-up funds. This funding allows 20 Block 82 aircraft to be converted to Block 89, before the Block 89A modification is available, and subsequently those aircraft will be efficiently updated to Block 89A version.

The costs to update the EA-6B aircraft have not been impacted by the assumption of the Air Force mission beyond those necessary to keep the additional aircraft in the inventory.

The current Block 89A program is funded at $1 billion (includes FY 1996 Congressional plus-up for Block 82-89 Mod) to bring all aircraft to the single configuration. Additionally, $40 million for high band (Band 9/10) transmitter, $90 million for low band (Band 0-3) transmitter, and $25 million for USQ-113 communications jammer upgrades are funded.

F-18 READINESS

QUESTION: Admiral Boorda, what are the separate mission capable (MC) rates for Navy F-18 units currently stationed in the US and those now deployed at sea? How have these separate MC rates changed over the last three years?
ANSWER: F/A-18 Mission Capable rates over the last three years for the deployed forces and non-deployed forces are as follows:

NON-DEPLOYED FORCES MISSION CAPABLE RATES

FY 93 MC	74.4
FY 94 MC	73.9
FY 95 MC	70.7

DEPLOYED FORCES MISSION CAPABLE RATES

FY 93 MC	78.4
FY 94 MC	76.8
FY 95 MC	82.3

QUESTION: Are you aware of reports your staff has received concerning MC rates as low as the mid 60s being experienced by F-18 units stationed in the US?
ANSWER: Yes. Some shore-based squadrons have reported rates even lower than that during some period of the last three years. Lows in mission capable rates are attributed to deployment cycle phases where squadrons go through a planned cycle where new people join the squadron, aircraft are repaired and undergo numerous modifications, and training is conducted, all with the intent of getting the squadron to an optimum state of readiness in terms of people, aircraft, and training during the approximate 18 months, where they build-up for the next deployment. In effect, we do not have enough spare parts to maintain our readiness at peak level all the time. We strive to manage our resources to ensure peak readiness prior to and during deployments.

QUESTION: Are you aware of reports that approximately 155 F-18s stationed in the US currently lack at least one engine and are incapable of flight operations?
ANSWER: Yes. An update of the F404 engine status reveals 128 bare firewalls in the F/A-18 fleet today. The Navy has formed a government and industry team to address the problem and has lowered this number from a

high of 166 in Nov 95. Production fixes to resolve this situation are being incorporated and a retrofit plan for fleet aircraft is funded and in work.

QUESTION: Are spare parts acquisitions, especially for F-404/400 engines and F-18 hydraulics, adequate to restore all of these F-18s to flight operations in the next six months? If not, what level of funding would be needed?
ANSWER: Spare parts are currently on contract and/or in the rework cycle with a projected get well date for the top ten readiness degraders of 12/98. In six months the situation will be better for some of these items but for others the lead time for delivery of the piece parts, or the industrial capacity to produce them, or the re-engineering effort to design or test a better component will not be available. Additional funds would not expedite these efforts.

QUESTION SUBMITTED BY SENATOR CHRISTOPHER S. BOND

RECRUITING

QUESTION: In this age of downsizing and consolidation, it is a hard concept for some to understand the need to have a robust and active recruiting program. General Krulak would you please address the difficulties you face in your ability to meet a recruit requirement of 44,000 Marines in the coming year? Admiral, I'd like you to address the same question from the Navy's perspective in recruiting new Sailors.
ANSWER: Despite Navy's consolidation and downsizing, supporting a post-drawdown force will present significant recruiting challenges. While results from the 1995 Youth Attitude Tracking Study (YATS) registered a small improvement in male 16-21 year old propensity to join the Navy, propensity is still 20 percent lower than 1991 levels. In recruiting terms, this means that the proportion of young Americans describing themselves as simply "not interested" in military service has increased. While Navy has been meeting accession mission, this decline in propensity has caused new contracting to fall short of goals repeatedly. As a result, the inventory of quality young men and women in Navy's Delayed Entry Pool (DEP) is below that desired to efficiently support accessions over the next 12 months.

Declining interest in military service is especially troubling as unemployment rates are projected to hover around 6 percent for the next several years. Experience has shown that unemployment below 6 percent signals difficulty in military recruiting. Similarly, while data from the 1990 census show that general youth cohort population is on the rise, so to is the portion of college bound youth. The projected three percent rise in population from FY95 to FY97 must support a 17 percent rise in accession mission. The impact of these trends on recruiting: while the size of the recruitable market is expected to increase, converting this market into actual new enlistments will remain challenging.

As Navy shrunk in size but increased in technological sophistication, recruit quality standards were raised to the current mix of 95 percent high-school diploma graduate (HSDG), 62 percent Test Category I-IIIA (above 49 on the Armed Forces Qualification Test - AFQT) and no Category IV (below 31 on the AFQT). Post-drawdown recruiting effort has thus shifted from quantity to quality.

Navy's near term recruiting challenges focus on recruiting the quantity and quality of recruits needed to support a smaller, higher tech Navy. Many occupational fields have been historically hard to fill (high qualification requirements, sea-intensive, etc.). In view of this, the most effective method Navy has to channel qualified applicants into hard-to-fill ratings are the programs which include incentives such as enlistment bonuses and Navy's College Fund. Continuation of these programs is absolutely critical for Navy Recruiting to fill the specific skill requirements of the fleet.

To stay competitive in the recruiting environment, Navy must become a world class marketing leader through improved use of technology. Our civilian competitors are already recruiting on the Internet, calling and tracking potential applicants by computer, down-loading leads from national tele-marketing centers, creating CD-ROM multi-media sales presentations and processing leads from local and national sources real-time.

We must take every action to maintain the DOD and Congressional commitment to strong and adequately resourced recruiting programs that we have enjoyed recently. These actions include continuing quality of life improvements for recruiters, wisely managing personnel and support budgets, and continuing judicious use and support of incentive programs such as the Montgomery GI Bill and the Navy College Fund. With your support and a sustained level of advertising, the Navy will build market position and continue to attract sufficient numbers of high quality young Americans willing to serve their country.

QUESTION SUBMITTED BY SENATOR CONNIE MACK

E-2C HAWKEYE

QUESTION: Admiral Boorda, I have been told that the E-2C Hawkeye provides Airborne Early Warning/Command and Control for deployed Battle Groups and DoD's on-going Counter Narcotics tasking. It is my understanding that the Navy initiated production in FY'95 at a planned rate of four aircraft per year through FY'03 to meet fleet operational requirements. However, in FY'96 only three were budgeted and the FY'97 request only provides for two of these aircraft.

Admiral Boorda, can you give me some background on the operational requirements these aircraft are intended to meet?

How is this mission requirement currently being met?

What additional cost does the Navy incur by slipping the production schedule?

ANSWER: The E-2C HAWKEYE serves as the airborne "EYEs of the Fleet." It significantly enhances tactical situation awareness and fulfills operational requirements for extended airborne early warning surveillance (i.e. detection, tracking, classification and reporting of airborne and surface contacts). E-2C's also provide extensive command and control requirements across virtually every primary mission area, every warfare category, including support of counter narcotics operations. The Group II E-2C will serve as the primary airborne platform in support of future Cooperative Engagement Capability (CEC). It was designed to enhance operations in the littoral environment supporting Navy "From the Sea" requirements. The Group II specifically provides:

- increased detection range;
- increased track capability;
- increased situational awareness through multi-color display;
- increased command and control capability with JTIDS; and
- increased on station time.

These mission requirements are currently being met with a combination of E-2C Group II squadrons and the far less capable E-2C Group 0 squadrons.

The additional cost to the Navy is the extended life cycle costs of older E-2C Group 0 aircraft as well as the increased E-2 Group II costs resulting from a slower production schedule.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

NAVY MISSILE DEFENSE TESTING AT THE PMRF

QUESTION: Admiral Boorda, could you elaborate on the Navy's current plans for completing flight tests of the Navy lower and upper tier missile defense systems?

ANSWER: A number of flight test events are planned over the next several years in support of Navy Lower and Upper Tier system development. These include:

- Navy Area TBMD (Lower Tier) Risk Reduction Testing
- Navy Area TBMD Developmental Testing
- Navy Area TBMD At-Sea Engineering and Manufacturing Developmental Testing
- Navy Theater Wide (Upper Tier) Testing (AEGIS LEAP)
- Navy Area TBMD Testing (SM2 Block IVA)
- Post Repair Test and Trial, and Combat Systems Qualification Trials for TBMD capable ships

Other tests and fleet exercises will be added as both programs mature. A significant portion of these tests will be conducted at the PMRF facility.

QUESTION: Admiral Boorda, knowing that you are somewhat familiar with PMRF, could you cite the advantages to completing Navy missile defense testing at the range?

ANSWER: PMRF is well suited to support a significant portion of planned Navy TBMD testing. Capitalizing on AEGIS ships stationed at nearby Pearl Harbor, and frequent Fleet training operations, PMRF can readily support a wide range of TBMD testing requirements. The ability to present complex warfare scenarios, combined with a realistic littoral environment, makes PMRF an important asset to support further development and testing operations. Additionally, PMRF offers a large expanse of relatively unpopulated operating areas which can support the long range tests required for TBMD testing profiles. PMRF target launch and range instrumentation is excellent, and planned BMDO and Navy upgrades to range facilities will add even more realism and flexibility to this important complex.

QUESTION: Admiral Boorda, could you assure me that the appropriate officials will meet with PMRF representatives to make sure both sides exchange the information necessary to allow test planning and preparation to proceed?

ANSWER: Both BMDO and PEO(TAD) staffs are working to identify the requirements and resources necessary for successful program execution. Several joint working groups, which will include PMRF personnel, are being proposed to review all test operation planning and preparation efforts. These groups will look at all issues, including required range (both fixed and mobile) instrumentation, target requirements, data analysis, and scenario design and executability, and will provide ample opportunity for the exchange of all needed information with PMRF personnel.

V-22 OSPREY

QUESTION: Admiral Boorda, there have been press reports indicating that Navy might purchase a replacement helicopter for the CH-46 instead of waiting for the V-22. Can you comment on these reports?
ANSWER: Navy is examining several options to replace the aging CH-46 for its marinized Vertical replenishment mission in support of Carrier Battle Groups. Among the options under consideration are a marinized version of the Blackhawk helicopter(CH-60) and an examination of commercial leasing alternatives. The V-22 will eventually replace the Marine Corps' CH-46 helicopter, which is now used for troop transport.

SEA ROTATIONS

QUESTION: Admiral Boorda, the Navy has had a policy of limiting sea tours to six months. With the smaller fleet, and the large number of overseas contingencies, are you still able to maintain that policy?

ANSWER: With limited number of exceptions, yes. Waivers to the PERSTEMPO policies require my personal approval. Units which have experienced unusually heavy tasking are placed on a watch list which receives careful screening for additional tasking. In 1995, only three units, all ships, required an approved exception. Because Navy is an operational force, we are able to handle most contingencies with our normally deployed forces, and to plan for their timely relief and return home.

QUESTION: Admiral Boorda, a recent Wall Street Journal article noted that the INDY is expected to be at sea for up to 230 days or nearly 8 months this year. How does this time at sea fit in with your policy?

ANSWER: This represents one of those situations I personally approved. The INDEPENDENCE is one of our Forward Deployed Naval Force units, which as you well know, is on a forward deployed footing. We expect their operating tempo to be somewhat higher than the rest of the fleet. We have taken a hard, serious look at the schedule for INDEPENDENCE and those units in her battlegroup. Despite her high operating tempo of late, we have stretched her maintenance period, and curtailed her exercise participation in order to keep operating tempo in the acceptable range. Additionally, INDEPENDENCE deployed to the Arabian Gulf for only three months last fall, as opposed to the normal fleet six-month deployment schedule. A review of her operating tempo over the normal review period of the past three years, shows she is still below 50 percent operating time at-sea.

MODERNIZATION DEMANDS

QUESTION: Admiral Boorda, do you concur with the Secretary's view?

Answer: Yes, I do. As the Secretary and I have both testified, it is imperative that future funding for Navy's modernization programs actually materialize. If we reduce funding as time goes on, if we do not realize the savings of our downsizing and restructuring, if we do not keep the funds we save, and if we do not apply those savings to the Navy of the future, we ultimately place future readiness at substantial risk. Beginning next year, and throughout the FYDP, we are requesting increased amounts for modernization and for the procurement accounts. The Secretary and I have taken this action as part of an overall blueprint to put our recapitalization plan on a reasonable track by the end of this decade. Any additional fiscal year 1997 procurement funding would certainly help diminish the magnitude of increases necessary in fiscal years 2002 and 2003.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

SHIP FORCE STRUCTURE

QUESTION: The Congressional Research Service estimates that the Navy needs to build an average of 10 to 11 ships a year to maintain its fleet size. Yet the Navy's new construction request is only four ships, all Arleigh Burke class destroyers. How do you explain the discrepancy, and what are your plans to rectify the upcoming train wreck?

ANSWER: Navy recognizes that it will have to build more ships each year than are currently being built. An increase in average annual new ship construction to almost 10 ships per year is required early in the next century to maintain a Bottom Up Review force level of 330 to 346 ships. Current building rates are basically half this required level.

Navy estimates that to support such a long-term shipbuilding program will require an average annual total SCN expenditure of about $11.3B (CB95$). This contrasts to the current FY 97-01 SCN program average of $6.2B CB95$ per year in the fiscal year 1997 President's Budget. Closing this gap is the challenge.

QUESTION: Please provide the number of ships scheduled to enter the inventory per year. Break out by Battle Force, Reserve, and Non-Battle Force.

ANSWER: The number of ships scheduled to enter the inventory per year is as follows:

DATE	BATTLE FORCES	RESERVE	NON-BATTLE FORCE
30 Sep 96	12	4	8
30 Sep 97	7	0	6
30 Sep 98	8	1	4
30 Sep 99	4	0	4
30 Sep 00	3	0	3
30 Sep 01	4	0	5
30 Sep 02	6	0	0
30 Sep 03	4	0	0
30 Sep 04	6	0	1

SUBMARINE THREAT TO SEA LINES OF COMMUNICATION

QUESTION: Ninety percent of material and equipment for an MRC must arrive by sea and submarines pose a potential threat. Yet, the Russians are advertising Kilo class diesel submarines for sale. What impact would these highly capable and quiet submarines have on our ability to keep the sea lanes open?

ANSWER: Just as control of the seas is paramount to successful warfighting, the free flow of goods in peacetime has been, and will always be, vital to the economic health and prosperity of the U.S. and the free world. Any submarine poses a major threat to this control and to the unrestricted flow of vital materials along sea lines of communication. The world's most heavily traveled sea lanes and all straits and choke points lie in or near shallow, littoral waters, with their difficult acoustic conditions. In addition, many of these sea lanes pass through unstable regions where the risk of conflict is real, and U.S. interests vital.

In Southwest Asia, Iran, noted for its long-standing anti-western foreign policy, has purchased three Kilo-class submarines from Russia. These highly-capable, diesel submarines have the potential to threaten one of the world's principal oil shipping lanes. In conflict, they are a potential undersea threat that, unless neutralized, could disrupt, delay, or severely limit our response to a Major Regional Conflict, or increase the cost to

U.S. and coalition forces. This is but one example of the recent proliferation of undersea technology, platforms, sensors, and weapons systems.

While advanced capability diesel submarines such as the one you described pose a very real undersea threat, and the character of this threat may be constantly changing , it is important to remember that the threat itself is not new. U.S. naval forces are ready. The robust capabilities of our Integrated Undersea Surveillance Systems' cueing, combined with our forward deployed anti-submarine warfare platforms, can keep any sea lane open. Accomplishment of this unique Navy mission is integral to sustained superiority at sea and to the ultimate success of a joint campaign during conflict.

CNO NAVAL INSTITUTE SPEECH

QUESTION: Admiral, I admire your courage for your Naval Institute speech where you said "My function in life is not to provide industry with money so you can provide me with papers and view graphs." Would you care to elaborate on those remarks? How is industry reacting to the paradigm shift?

ANSWER: I recognize the need to do studies and acknowledge that industry has a lot to offer in that respect, but at some point we need to stop doing studies, make a decision, and get on with modernizing and recapitalizing the force. In a time when funding is as tight as it is, I want to ensure that the Navy is applying its resources appropriately.

I believe that industry is reacting positively. We are counting on acquisition reform to help finance our force modernization efforts. The defense industry is already evolving to keep pace with our reform initiatives and will have to continue to change the way they do business in order to stay competitive.

FLYING HOUR PROGRAM

QUESTION: With so many of your flight hours being used for contingency operations, do you have sufficient flight hours/funding to complete your CONUS training syllabus? It is my understanding that a large portion of the flight hours are being used to fly contingency operations. The pilots are getting sufficient flight time, but all they do is take off, loiter and land. They do not fly supersonic, do not dog-fight, drop bombs or complete training items necessary to maintain readiness. This is particularly true for the Reserve units who are only funded a minimum number of hours for training. How do you balance peacekeeping missions vs Training?

ANSWER: Funding for squadron flight hours are based on the 18 month turnaround training cycle. The level at which units begin fundamental training (focusing on the basic skills and requirements) commences following deployment and lasts normally about 6 months. The advanced level training occurs 6 months prior to deployment in which units exercise advanced skills and combine training with other individual units to form division tactics, air wing operations, carrier training exercises and battlegroup integration. Each phase is more complex and unit readiness reaches its peak just prior to deployment. The deployment phase provides combat capable organizations to theater commanders which conduct directed operations. Training is conducted daily along with directed contingency operations. However, while on deployment, ranges, bombing facilities, and specific training equipment are not as available as would be in the United States where normal training is conducted.

Supplemental funding has historically been provided to support the majority of the hours executed for peacekeeping missions or contingency operations. If supplemental funding were not provided, non-deployed training would be reduced and thereby impact fleet readiness.

SPECIAL OPERATIONS COMMAND

QUESTION: The Navy currently reimburses Special Operations Command for missions assigned to their Patrol Coastal (PC) Ships. Since they are a cost effective method of patrolling an area, when an AEGIS capability is not needed, why hasn't the Navy procured any for their own inventory?

ANSWER: Navy does not reimburse Special Operations Command for missions assigned to their Patrol Coastal (PC) ships. When USSOCOM PC ships chop to the fleet, Major Force Programming (MFP) SOCOM funds pay for all costs associated with operations, including repair parts, consumables, and fuel with MFP-11 SOCOM funds. In fact, the Special Boat Squadrons purchased their own fuel rigs to include hoses, couplings, and all other associated hardware, in order to obtain fuel when underway from naval support vessels.

Because Patrol Coastal ships are significantly less capable than our AEGIS ships, they do not satisfy our warfighting requirements in the littorals. By contrast, AEGIS cruisers and destroyers are multi-mission combatants capable of providing battle space dominance in the littorals against attacking aircraft, cruise missiles, submarines, surface ships, and Theater Ballistic Missiles. In addition, they bring powerful command and control capability to the theater, and provide Naval Surface Fire Support and Tomahawk/Strike Warfare capability for power projection ashore. Both AEGIS combatants and PCs are good at what they do, but there are probably no two categories of ships in the Navy inventory that are more different in size, design, or purpose.

QUESTION: What is the cost per steaming day for an FFG?

ANSWER: The per day steaming cost for an FFG 7 class ship is $7,524.

QUESTION: What is the cost per steaming day for a PC?

ANSWER: The per day steaming cost for a PC is $4,708.

QUESTION: Please provide the annual cost for an FFG and PC broken down by appropriation. For O&MN, please provide the information in the OP-41 and OP-30 format. For Depot maintenance, also provide an average cost per year for the last three years, in addition to the current year. For MILPERS, please provide end strength, officer and enlisted, as well as an average cost per year.

ANSWER: Annual cost breakdown for an FFG:

- O&M,N: OP-30, Depot Maintenance: ($M)

	93	94	95	96
SRA/DSRA	.0565	.0527	.0602	.0615
Emergent	.0138	.0120	.0148	.0960
Other	.0186	.0103	.0130	.0216

- OP-41, Ship Operations: ($M)

Fuel	1.185
Utilities	.261
Repair Parts	1.135
Other OPTAR	.500

- MPN: End Strength = 16 officers, 198 enlisted.
  FY98 Total MPN Cost: $8.0M

Annual cost breakdown for a PC:

- O&M,SOF Depot Maintenance: PC depot maintenance is not an "average" and will vary with maintenance and underway scheduling. Since this is a new ship class, FY-96 depot maintenance costs are based upon engineering estimates provided by the contractor. Many of the ships are still under their initial one-year warranty. Additionally, Docking, Phased Maintenance Availability (DPMA) schedules are based upon anticipated wear on components. Evaluation of components will not occur until after the ships have sufficient numbers of hours on engines and propulsion systems.

- Total O&M,SOF DEPOT MAINT ($M):

93	94	95	96
1.25	1.62	3.62	10.68

- Annual O&M,SOF per ship: $1.85 ($M).

- Annual MP,N per ship: $1.53 ($M).

BLOCK III TOMAHAWK MISSILES

QUESTION: Can you explain the Navy decision to slow down the procurement of Block III Tomahawk missiles? It appears that we are not giving the war fighters the tool they need to accomplish their mission. (The Navy was slated to buy 217 missiles per year from 1996 to 1998, current plans are not '96-164; '97-120; and '98-100).
ANSWER: The following table illustrates the changes in procurement quantities planned in each of the FY95 through FY97 budgets:

	FY95	FY96	FY97	FY98
FY95 BUDGET	217	217	217	217
FY96 BUDGET	217	164	164	120
FY97 BUDGET	217	164	120	100

As a result of the FY94 single-up competition, Navy realized an advantageous pricing structure. We decided to fund limited remanufacturing and reduce new procurements in anticipation of Block IV introduction. Our objective was to keep the Block III production line open as a bridge to Block IV missile remanufacture.

During FY97 budget preparations, procurement quantities of submarine-launched configuration missiles were reduced to minimum contract quantities due to reduced submarine inventory requirements.

Fiscal constraints prevent funding procurement of missiles to FY95 budget levels.

OPERATIONAL SUPPORT AIRCRAFT

Question: Regarding Operational Support Aircraft (OSA), how do you feel about single service ownership for aircraft?

Answer: The service chiefs have had a meeting regarding single service ownership and I think we have a good plan where the services retain many of their Operational Support Airlift aircraft that perform significant and important logistic support. We have reduced some numbers of aircraft because we can consolidate some things. The scheduling is done by the Transportation Command using systems with which we all agree. I think we have come to the right answer and it does not include a single service simply taking over the mission.

QUESTION: How do you interpret Navy Unique Fleet Essential Aircraft (NUFEA)? Do you include C-9s, C-20s and C-130s in that category?

ANSWER: NUFEA assets provide Department of the Navy (DoN) intra-theater fleet logistics support from Strategic Lift Aerial Ports of Debarkation in theater to major and minor airheads that support Navy's short range Carrier onboard delivery and Vertical onboard delivery. In direct support of Navy's missions, NUFEA provide for the movement of high priority passengers and cargo in direct support of the constantly changing Fleet and Marine afloat units. NUFEA assets provide an essential and timely response to DoN requirements. Navy considers all C-9's, C-20G's, and C-130's as NUFEA. Navy also considers C-12 aircraft stationed Outside the Continental United States as NUFEA.

QUESTION: Please provide the OP-20 for all logistic aircraft (both OSA and SSA) for FY 1993 to FY 1996. Break out Active vs Reserve aircraft.

ANSWER: OP-20 Flight Hour data below is Department of the Navy (including Marine Corps)

Aircraft	FY93	FY94	FY95	FY96
Active				
VP-3	2074	2147	2189	2236
CT-39	2781	2016	2053	1870
C-9	2890	2613	2465	2536
C-20	N/A	N/A	174	N/A
C-12	41875	43147	42214	37810
C-130	2177	1691	N/A	N/A

Aircraft	FY93	FY94	FY95	FY96
Reserve				
CT-39	2983	4993	4211	4500
C-9	44621	42528	40125	41982
C-20	1179	2240	5898	8400
C-12	15171	14586	14183	15132
C-130	6935	10375	12274	11065

QUESTION: Please provide the depot maintenance (broken down by airframes and engines) for the same logistic aircraft? Please provide a cost per year by T/M/S.

ANSWER: Maintenance data below is Department of the Navy (including Marine Corps) expressed in thousands of dollars.

Aircraft	FY93	FY94	FY95	FY96
Active Aircraft				
VP-3	1,740	972	0	1,687
CT-39	0	0	0	0
C-9	0	982	0	0
C-12	1,218	592	1,295	731
C-130	1,540	0	0	0
Active Engines				
JT12A8(CT-39)	1,213	903	741	598
JT8D9(C-9)	1,462	1,708	1,294	1,361
PT6A41/42(C-12)	6,747	7,106	7,516	5,952
Reserve Aircraft				
CT-39	253	1,004	1,059	0
C-9	23,325	13,407	11,445	12,485
C-20	0	0	1,076	0
C-12	0	222	76	162
C-130T	0	0	0	0
Reserve Engines				
JT12A8(CT-39)	1,355	1,292	1,207	938
JT8D9(C-9)	11,259	3,527	10,553	2,870
PT6A42(C-12)	2,286	2,064	1,526	2,247
MK511/611-8(C-20)	148	100	319	230

NOTE: VP-3 and C-130T engine data not included because the T-56 engine is used on all P-3 and C-130 variants.

QUESTION: How much money was saved by reducing non-deployed ship steaming days from 29 to 27 days per quarter? Which programs did you align these resources to?

ANSWER: The FY 1997 ship operations budget was reduced by $18,369 thousand due to the reduced fuel requirement associated with the non-deployed operating tempo reduction to 27 from 29 days per quarter. An associated increase of $2,152 thousand was required to fund the additional utility costs of the two extra days in port per quarter for non-deployed ships, making the net reduction $16,217 thousand.

The savings were applied to fund the incremental fuel costs for the reserve carrier, USS JOHN F. KENNEDY (CV-67), to complete an operational deployment in FY 1997 ($3,767 thousand). The remainder was added to the ship operations Repair Parts and Other OPTAR areas, consistent with the FY 1996 increase which was based on FY 1995 actual obligations.

QUESTION: Please provide the numbers corresponding to the information depicted on Charts 1 and 2 on pages 1-7 and 1-8 of the Budget Highlights Book. Also provide the number of ships and personnel corresponding to the years shown.

ANSWER: The information requested is provided on the attached table.

TRENDLINES FISCAL YEARS 1982–2001

[Constant fiscal year 1997 dollars in thousands]

	Fiscal year—									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MILPERS	$13,955	$15,013	$15,869	$22,366	$23,590	$24,780	$25,603	$26,637	$26,967	$28,277
O&M	$31,995	$33,848	$35,141	$39,102	$36,109	$35,664	$36,664	$35,334	$33,831	$36,664
Procurement	$39,143	$48,084	$43,230	$43,603	$42,366	$41,967	$46,003	$38,115	$38,691	$34,547
RDT&E	$9,056	$9,130	$11,025	$12,645	$12,937	$12,271	$12,081	$11,361	$10,275	$9,101
Construction	$2,285	$2,708	$2,671	$3,125	$3,113	$2,787	$2,847	$2,940	$2,321	$2,372
Battle force ships	514	514	524	545	555	568	585	567	546	526
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MILPERS	$28,120	$27,250	$26,214	$25,253	$24,622	$24,813	$23,693	$23,435	$23,291	$23,264
O&M	$29,723	$26,472	$25,063	$26,446	$25,374	$23,671	$22,386	$22,753	$22,396	$22,710
Procurement	$27,865	$22,716	$17,035	$18,036	$16,118	$15,464	$19,544	$20,254	$22,624	$22,066
RDT&E	$9,517	$9,657	$8,729	$8,989	$8,611	$7,335	$7,363	$7,183	$6,552	$6,471
Construction	$2,160	$1,523	$2,794	$1,691	$2,196	$1,954	$1,858	$1,875	$1,897	$1,957
NDSF	....	$2,669	$1,637	$729	$1,047	$963	$979	$839	$270	$235
Battle force ships	466	435	391	372	359	357	348	336	336	335

PERSONNEL FISCAL YEARS 1982–2001

[End strength in thousands]

	Fiscal year—									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Military end strength:										
Active duty E/S	745	752	761	769	780	786	790	790	780	766
Navy	553	558	565	571	581	587	593	593	583	571
Marine Corps	192	194	196	198	199	199	197	197	197	195
Reserve E/S	127	147	153	164	175	190	193	196	194	194
Navy	89	106	113	124	134	148	149	152	149	150
Marine Corps	38	41	40	40	41	42	44	44	45	44
Civilian end strength	319	339	343	352	342	353	348	356	341	329
Navy	299	318	321	330	320	331	327	332	321	310
Marine Corps	20	21	22	22	22	22	21	22	20	19
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Military end strength:										
Active duty E/S	727	688	643	610	599	581	572	569	568	568
Navy	542	510	469	435	425	407	398	395	394	394
Marine Corps	185	178	174	175	174	174	174	174	174	174
Reserve E/S	184	174	149	142	141	138	138	138	138	138
Navy	142	132	108	101	99	96	96	96	96	96
Marine Corps	42	42	41	41	42	42	42	42	42	42
Civilian end strength	309	285	269	249	240	227	221	212	206	203
Navy	293	269	253	231	221	208	202	193	188	185
Marine Corps	16	16	16	18	19	19	19	19	18	18

QUESTION SUBMITTED BY SENATOR PATRICK J. LEAHY

AIRCRAFT CARRIER

QUESTION: Admiral Boorda, when would the Navy like to procure its next aircraft carrier? In your opinion, should this ship be a Nimitz class carrier, or some new kind of ship?

ANSWER: The Navy must replace its aging carriers in an orderly manner, recognizing the impact of an aircraft carrier procurement on DOD resources. We need a new ship to enter the fleet not later than 2008 to replace a warship reaching 47 years of service life. That has driven us to pursue procurement in 2002, allowing for a six year build period.

Normally, we seek advance procurement funds two years prior to the procurement event to order our longest lead time items, including most of the nuclear propulsion components. That would then put advance procurement in the year 2000 at the latest.

We are continuing to evaluate alternative funding profiles to procure CVN 77 in the most economical manner. We still need to take delivery not later than 2008, thereby balancing out the ship replacement schedule, but are investigating a host of ways to do so.

I have referred to the next aircraft carrier as CVN 77 because we know that it will be a Nimitz class carrier. We have just begun the initial concept development phase for a future aircraft carrier design which we expect to produce the successor to CVN 77, but that program will not be mature in time to satisfy the near term requirement for our next carrier by 2008.

QUESTIONS SUBMITTED TO GENERAL CHARLES C. KRULAK

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

LPD-17

Question: I understand that there has been some discussion within the Navy and Marine Corps about the idea of accelerating the procurement of the LPD-17, possibly procuring the second ship of the class in FY '97 instead of waiting until FY '98. With the current plan, since the 2.5 Marine Expeditionary Brigades requirement for amphibious lift won't be fulfilled until approximately FY '09, would an accelerated construction schedule for the LPD-17 help alleviate the lift shortfall?

Answer: Yes, any acceleration of the LPD-17 program will bring the lift capacity of the amphibious force to 2.5 Marine Expeditionary Brigades sooner. However, it is traditional to have a gap year after the procurement of the lead ship to allow the design to mature as the first ship is being constructed.

Question: I understand that there has been some discussion within the Navy and Marine Corps about the idea of accelerating the procurement of the LPD-17, possibly procuring the second ship of the class in FY '97 instead of waiting until FY '98. With the current plan, since the 2.5 Marine expeditionary Brigades requirement for amphibious lift won't be fulfilled until approximately FY '09. Would the Navy like to see the ship accelerated.

Answer: I must defer this question as asked to the Navy, however, the Marine Corps would like to see the funding profile accelerated if it could be managed within budgetary constraints.

Question: I understand that there has been some discussion within the Navy and Marine Corps about the idea of accelerating the procurement of the LPD-17, possibly procuring the second ship of the class in FY '97 instead of waiting until FY '98. With the current plan, since the 2.5 Marine expeditionary Brigades requirement for amphibious lift won't be fulfilled until approximately FY '09. How much would it cost to add this ship in FY '97?

Answer: I must defer this question to the Navy.

QUESTION SUBMITTED BY SENATOR CHRISTOPHER S. BOND

RECRUITING

Question: In this age of downsizing and consolidation, it is a hard concept for some to understand the need to have a robust and active recruiting program. General Krulak would you please address the difficulties you face in your ability to meet a recruit requirement of 44,000 Marines in the coming year?

Answer: FY97 presents the Marine Corps recruiting program with a critical test. Recruiters will face the same challenges experienced in recent years, only to a greater extent.

From FY95 to FY97, DoD accession requirements jump by over 21 percent. At the same time, the youth population has not yet regrown to the higher levels of a decade ago. These are the slowest gains since the Depression decade of the 30s. More and more young people are choosing college, and unemployment remains low. Since the Cold War era, overall interest in joining has dropped considerably. We are also observing disturbing cultural indicators on illiteracy rates, poor physical fitness, higher rates of crime, and drug use, and an erosion of basic values. Overall, these trends make finding the "few good men and women" we need more difficult. From FY92 to FY95, the situation has resulted in a 120 percent increase in the recruiting activities necessary to realize a single enlistment. With high schools that withhold basic directory information and more and more homes with answering machines, it is becoming increasingly difficult to find opportunities to reach and speak with potentially eligible young people.

In the midst of these circumstances, we are also working to gain for our recruiters, and their families, a quality-of-life that is comparable to that of other service members. The Marine Corps and other Services benefited from an FY96 congressional plus-up for recruiting and advertising programs, and passage of a higher level of Special Duty Assignment Pay. We genuinely appreciate this Congressional support. These actions assist recruiters in accomplishing their very demanding duties. Recruiting duty, however, remains arduous, and there are many challenges in the future.

The latest DoD recruiter survey tells us that we must do better. With the majority of recruiters distant from a military base, they face problems with housing, medical care, and child care. In fact, most service members serving on independent duty remote from a military installation experience these same difficulties.

QUESTIONS SUBMITTED BY SENATOR CONNIE MACK

AV-8B REMANUFACTURE

Question: The '97 budget has requested 10 remanufactured AV-8B Harriers. Could you briefly summarize this program and speak to the procurement rate and whether it provides an adequate build up of combat capability based on USMC commitments and contingencies?

Answer: We are pursuing a remanufacture program in which 72 of our older AV-8Bs are rebuilt to current radar/night attack standards. This program gives us a virtually new aircraft at 77 percent of the cost of procuring new ones. We feel the original procurement objective of 12 aircraft a year is more cost effective and would meet our contingency requirements. Funding constraints, however, have precluded reaching that goal.

BLOUNT ISLAND

Question: I have been impressed with the efficiency and capability of the MPF replenishment site at Blount Island. Can you briefly tell me about the mission being performed at Blount Island? What is it about this site that is particularly appealing to the Marine Corps? It is my understanding that this property is currently being leased. What benefits would there be for the Corps in purchasing this property?

Answer: Blount Island Command operates both as a subordinate command to Commander Marine Corps Logistics Bases (COMMARCORLOGBASES) and as the Commandant of the Marine Corps' executive agent for prepositioning programs. In this regard, Blount Island is responsible for the readiness posture of the prepositioning programs. This includes meeting all attainment, maintenance, and sustainment requirements for the Maritime Prepositioning Ships and Norway Geographic Prepositioning programs.

Blount Island offers a variety of advantages to the Marine Corps not readily available at other sites. These include the following: close proximity to the Marine Corps' logistics center in Albany, GA.; access to a large industrial base and Navy support structure available in Jacksonville, FL.; fully operational facility - time tested in war and peace; excellent road and rail network; private slipway, only 7 miles from the sea buoy with no encumbrances, i.e., bridges or commercial port facilities between slipway and open ocean; 15 minutes from an international airport; contiguous, compact facility with dedicated pier, 33 acres of staging area adjacent to the 1000 foot pier and maintenance facilities; dedicated, highly skilled work force in place; no state or city income taxes which attracts highly skilled work force; and genuine public and private business community support.

Additionally, during operations DESERT SHIELD and DESERT STORM, Blount Island's throughput of military equipment and supplies exceeded all other ports within the United States. Clearly this demonstrates Blount Island's importance to the Nation.

Establishing a permanent MPF facility at the current location provides assured availability of unique assets necessary for quickly processing ships through the MPF maintenance cycle and thus minimizing their time off-station. Further, Blount Island's close proximity to the Marine Corps Logistics Base, Albany, Georgia, greatly facilitates the timely and cost effective throughput of materiel for the maintenance cycle.

The current lease expires in the year 2004. Annual rent is comprised of a fixed amount plus reimbursement for variations in taxes and insurance. Rent for the facility is projected to total $82.7 million for FY 1997 through expiration in 2004. The Marine Corps has long recognized the advantages of purchasing the facility, but budget constraints have precluded submission of a project. The current lease does contain a one-time provision for a five year renewal, but is limited in value since it requires renegotiation of price and terms. Purchase of the property has been estimated at $81.0 million, which would avoid presently obligated lease payments of approximately $73.2 million if accomplished in FY 1997.

MARITIME PREPOSITIONING FORCE ENHANCEMENT

Question: Previously the Corps has received authorization and funding for one of three MPF enhancement ships. These ships are specifically designed to provide the Corps with air-ground task force enhanced capabilities in naval construction, medical support and expeditionary airfield construction.

Last year, the Armed Services Committee authorized funding for the remaining two ships. However, your '96 posture statement suggests procurement will not occur until after the large medium-speed roll-on/roll-off ship program is complete.

General Krulak-how does this ship fit into the Marine Corps mission requirements? If additional money were provided to the Corps for limited procurement, would you spend this money on a MPF enhancement ship?

Answer: The MPF(E) program provides each MPSRON with a Fleet Hospital, an Expeditionary Airfield, a Navy Mobile Construction Battalion, MARFOR command element equipment augmentation and additional sustainment. These capabilities make an already creditable force more potent and lethal. The MPF(E) program has been validated by the Joint Requirements Oversight Council and the Chairman's Program Assessment. Acquisition of the first ship is underway.

Acquisition of the remaining two ships is dependent upon Congressional appropriations and support. The current Request for Proposal provides an opportunity for industry to offer a second ship. This opportunity takes advantage of the current bidding process and eliminates repetitive bidding and proposal costs.

If additional procurement funds were made available, MPF(E) would rank very high on our priority list.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

MV-22 PROGRAM

Question: General Krulak, your request would purchase the first four V-22 aircraft at $137 million per aircraft. Last year, I discussed my concerns with the high cost of the V-22 and ways to reduce that cost. What success have you found in lowering the overall V-22 cost?

Answer: The FY97 budget request addresses the first four aircraft on the production learning curve, for $602M, which includes $112.2M for each aircraft. This also includes aircraft Non-recurring Costs, Government Support Equipment, Peculiar Training Equipment and Parts, Publication/Technical Data, other Integrated Logistics Support, Production Engine Support, Initial Spares, and the Advance Procurement for the next five aircraft in FY98.

Estimated aircraft recurring unit flyaway cost has consistently decreased from the Defense Acquisition Board estimate of $41.8M (FY94$) in September 1994 to the current estimate of $38.8M (FY94$). These cost savings were achieved in spite of an inefficient procurement profile which takes 27 years to complete the USMC buy. A more cost effective and efficient profile could be achieved by considering Multi-Year Procurement (MYP) and a more reasonable lot of 24 to 36 aircraft per year.

For example, a procurement rate of 24 or 36 MV-22s per year could save the taxpayer as much as $6 to $8 billion (using inflation indices as reflected in the FY96 budget), or as much as $4.4 to $5.4 billion (using the lower inflation indices as reflected in the FY97 budget). This efficient production rate would complete delivery of the MV-22 to the fleet 11 years earlier than the current procurement plan. We will pursue this improved profile in future budget submissions.

Question: General Krulak, you have identified the V-22 as your highest priority. Can you identify funding from other programs to purchase more V-22's in the outyears?

Answer: No, unfortunately, I cannot identify funding from other Marine Corps programs. I, like the other Service Chiefs, am restricted by severe topline constraints.

Question: General Krulak, there has been some reports that the Special Operations Command is concerned that the V-22 as currently configured might not meet its requirements. Can you assure the Committee that the V-22 will be configured in a way to meet the needs of Special Ops?

Answer: The V-22 Research, Development, Test & Evaluation (Navy) funding profile includes resources to develop the Marine Corps MV-22 baseline program, as well as the US Special Operations Command (USSOCOM) CV-22 variant. In support of this phase of the program, the DoN and USSOCOM are nearing resolution of a program plan that is acceptable to the user, executable within existing resources and that maintains the MV-22 Initial Operational Capability of FY01 and the desired CV-22 Initial Operational Capability of FY05.

SEA ROTATIONS

Question: General Krulak, in the past few years there have been Marine units who missed successive Christmas celebrations because of overseas deployments. Can you tell us what your policy is regarding overseas deployments and what trouble you have in maintaining this standard?

Answer: The Marine Corps uses a one to four unit rotational cycle for overseas deployments whenever possible. This normally provides a unit deployment cycle of 6 months overseas and 18 months back at home station. This standard allows the Marine Corps to meet overseas commitments while maintaining operational readiness and acceptable deployment tempo. With the current structure, the Marine Corps can sustain current deployment requirements within reasonable deployment tempo parameters. When contingency operations arise, the units most capable of meeting the mission are normally tasked. This decision is based on a number of factors including unit deployment schedules, training cycles, and deployment tempo.

Occasionally, deployment schedules are modified in response to contingency operations. In the past, there have been occasions when a unit was deployed over successive Christmas periods. This is a rare occurrence and is brought about only as a result of an unscheduled contingency response. It will be avoided when reasonably possible.

MODERNIZATION DEMANDS

Question: Mr. Secretary, is it the Department of the Navy's position that it require additional procurement funds in fiscal year 1997 to meet its modernization objective?

General Krulak, what is the Marine Corps' position on this matter?

Answer: We have financed modernization i.e.; procurement and R&D, to the maximum extent practical, given both the severe topline constraints facing the Department of Defense and the current, proper focus on maintaining readiness.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

CONTINGENCY FLIGHT HOURS IMPACT ON TRAINING

Question: With so many of your flight hours being used for contingency operations, do you have sufficient flight hours/funding to complete your CONUS training syllabus? It is my understanding that a large portion of the flight hours are being used to fly contingency operations. The pilots are getting sufficient flight time, but, all they do is takeoff, loiter, and land. They do not go fly supersonic, do not dog-fight, drop bombs, or complete training items necessary to maintain readiness. This is particularly true for the Reserve units who are only funded a minimum number of hours for training. How do you balance peacekeeping missions vs. training?

Answer: Contingency Operations in Bosnia and Aviano cause reprogramming of flying hours and funds to complete missions. This year, deployments to the Bosnia theater has generated a deficiency of $7.8 million in the flying hour program with another $3.7 million in TAD, travel, and per diem expenses being used to support operations in Aviano. Without budget allocations for the Bosnia/Aviano deployments, the funds for this deployment are reprogrammed from CONUS training accounts.

Congress has historically provided supplemental funding to support the majority of the hours executed for peacekeeping missions or contingency operations. If supplemental funding is not provided, non-deployed training will be reduced beginning at the start of the Fourth Quarter FY 1996 and future fleet readiness will be impacted.

Aircrews on deployment to contingency areas are highly trained to execute all missions required, although the lack of advanced training while deployed generally degrades total mission readiness over time. No Reserve units are involved in contingency operations currently on-going in the Bosnia theater.

Peacekeeping missions are flown as required by the CINC. The unit is responsible to maintain combat readiness in conjunction with performing necessary requirements of the peacekeeping mission.

OPERATIONAL SUPPORT AIRLIFT

Question: Regarding Operational Support Aircraft (OSA), how do you feel about single service ownership for aircraft?

Answer: The Marine Corps does not concur with single service ownership of OSA. These aircraft serve a key role in supporting the Marine Forces Commander during wartime. Single service ownership would negate the purpose of OSA to provide responsive and flexible movement of high priority passengers and cargo.

The Marine Corps, along with the other Services, has worked extensively at improving the efficiency and effectiveness of DoD OSA operations. The OSA fleet has been sized to provide the necessary support to the CINCs and Services during wartime, and steps have been taken to garner greater efficiencies when these aircraft are utilized in time of peace. The Marine Corps feels there is insufficient data to support further steps to place OSA under single service ownership and such control could adversely impact the mission of the Marine Forces Commander during wartime.

NAVY UNIQUE FLEET ESSENTIAL AIRCRAFT (NUFEA)

Question: How do you interpret Navy Unique Fleet Essential Aircraft (NUFEA)? Do you include C-9s, C-20s, and C-130s in that category?

Answer: The Marine Corps does not operate NUFEA and does not include C-9s, C-20s, and C-130s in that category. Marine Corps' two C-9s and one C-20 are Operational Support Airlift aircraft. The Marine Corps' KC-130 aircraft are tactical assets with the primary mission of inflight refueling and do not fall under the category of NUFEA or OSA.

AMPHIBIOUS LIFT

Question: General, I know you have the CNO sitting there next to you as well as the Secretary of the Navy, how comfortable do you feel in the Navy's ability to provide you with lift that you need to get your Marines to their objective?

Answer: The Marine Corps requirement for amphibious lift is 3.0 Marine Expeditionary Brigades

(MEBs). Due to fiscal constraints, the current goal is 2.5 MEBs. Today, the active amphibious force can lift at least 2.5 MEBs in four of five fingerprints; the only exception being vehicle square. As a temporary solution to correct this deficiency, the Navy has enacted the amphibious lift enhancement plan that uses Naval and Ready Reserve Force ships to increase lift capacity to 2.5 MEBs in all five fingerprints. The risk associated with this plan is prudent given existing fiscal constraints and the competing imperative to recapitalize the amphibious force with the LPD-17 class.

OKINAWA

Question: General, there has been a lot of press lately about either reducing or removing our troops from Okinawa. If this was to take place, what would it do to the Corps ability for force projection in the Pacific? With Marines constantly deployed and the MPS squadrons is there really a need to keep troops in Okinawa?

Answer: Yes, there is a need to keep troops on Okinawa. Leaving Okinawa would significantly degrade the Corps ability to project force in the Pacific.

Any discussion of force projection in the Pacific comes down to two items: Time and money. If we removed or reduced our forces from Okinawa, something which the Government of Japan has never suggested, they would still have to be moved to a crisis area, and that would place additional burdens on our strategic lift and increase travel time. Currently, the Japanese government pays up to 54% of the direct costs of American troops in Okinawa, and the total cost to the Japanese has been estimated as high as $17 billion. Relocating from Okinawa would require those costs to be absorbed by the U.S. and would call into question our policy of forward presence in the Pacific.

We are looking for ways to reduce our footprint on Okinawa, but the bottom line is that the U.S. and Japan have a lot invested in Okinawa, and it is very important that the Marine Corps continue to operate from there.

JSTARS CAPABILITIES

Question: What capabilities does JSTARS bring to you as a field commander, and how valuable will it be once it becomes fully operational?

Answer: The JSTARS Ground Stations will provide Marine Commanders connectivity to the Joint Surveillance Target Attack Radar System (JSTARS System).

The JSTARS system provides critical battlefield surveillance and targeting information to the tactical commander. The system utilizes the sensors aboard the JSTARS aircraft with moving target simulators and synthetic aperture radar. The JSTARS will also provide a link to simulation which will provide for an enhanced and cost effective training and crew readiness capability.

The "value added" is provided through the capability of the system to receive information from designated airborne and national broadcast sensors and provide commanders and their staffs an actual picture of the battlefield. Deployment in multiple locations allows the tactical commander to simultaneously see the near-real-time tactical information and make timely decisions concerning which targets to engage and/or better interpret enemy intentions or movements.

MV-22 OSPREY PROGRAM

Question: General Krulak, the V-22 OSPREY program has had its share of difficulties. Would you elaborate what the test results have shown to date, and are you satisfied that the problems have been worked out enough that we should begin procurement of four aircraft in FY 1997?

Answer: I am completely satisfied with beginning procurement of the V-22 in FY 1997.

The V-22 program is doing very well. We have now flown over 1000 hours and the aircraft is 500 lbs. under weight, has lower projected drag and higher projected reliability than mandated in contractual performance specifications. With the Joint Requirements Oversight Council approval of our Joint Operational Requirement Document in April 1995, we are once again a joint program with the Department of the Air Force and United States Special Operations Command.

The Operational Assessments completed in FY 1994 and FY 1996 conclude the V-22 to be "potentially operationally effective and potentially operationally suitable" for its mission. These assessments, conducted by Operational Test Forces of the Navy and Air Force recommended continuation of the Engineering, Manufacturing, and Development phase of the program. The FY 1996 Operational Assessment also supported the approval of the Low Rate Initial Procurement Lot #1 funding.

With the successful acquisition decisions resulting from the Defense Acquisition Board, culminating in the Defense Resources Board of September 1994, we now have a commitment to production. We are funded in the FY 1996-2001 period to complete development and begin Low Rate Initial Production of the V-22. We are very happy with these developments and only wish it could have happened sooner. Each contingency we have been involved in since the V-22's original desired IOC of 1991 has made us wish we had already fielded its enhanced survivability, speed, and range capabilities.

SUPER DRAGON JAVELIN COMPARISON

Question: How does the capability of the Super Dragon compare with the Javelin? What is the cost per weapon?

Answer: The Super Dragon does not meet the Marine Corps Operational Requirements Document (ORD). The table below details a comparison of the Super Dragon and Javelin weapon systems.

JAVELIN TO SUPER DRAGON COMPARISON

CAPABILITY	JAVELIN	SUPER DRAGON
Range	65-2000 meters	65-1500 meters
Weight (ready to fire at night)	49.5 Pounds	54.1 Pounds
Lethality	Top Attack. Defeat current and future main battle tanks with reactive armor.	Direct Attack. Defeats current main battle tanks with reactive armor.
Gunner Survivability (Gunner exposure after trigger pull)	0 seconds (Fire and Forget)	8.6 seconds to Max Range
Effects of Counterfire	None (no tracking involved)	Possible. Must guide missile to target.
Soft Launch (Fire from an enclosure)	YES	NO
Integrated Day/ Night Sight	Yes (Command Launch Unit has 4x and 9x thermal sight built in).	NO. Super Dragon would require upgrades to our current day and night trackers.
Cooling Bottles and recharge station	No	Yes. Would require replacement of bottle washing and recharge stations.
Test Equipment	Built-in Test Equipment	Would require development of Test Program Set (TPS) for the Third Echelon Test set.
Cost	CLU = $147K (avg.unit cost) Msl.= $62K (avg.unit cost)	New Trackers (Qty = 500) -Day = $40K -Night = $65K Upgrade Trackers (Qty = 3000) -Day = $10K -Night = $10K New Missile (Qty = 25,000) = $29K Rebuild Existing Dragon Missile (Qty = 25,000) = $12K-$13K *Note. Above costs include all non-recurring costs.

NOTES

Cost for Super Dragon that can not be determined at this time include:

-Cost to rebuild/maintain Bottle Washing and refill station,

-Cost to develop and field TPS for Test equipment,

-Cost for equipment at quantities more realistic to USMC requirements (i.e. 464 Day\night trackers, and 4669 missiles),

-Number of new sights required vs. number of upgrades.

Requirements:

-There are several classified requirements that are not satisfied by the Super Dragon,

-Super Dragon does not meet the weight requirement.

REENLISTMENT RATES

Question: What are your first and second term reenlistment rates for the last ten years?

Answer: We do not have information readily available for second term reenlistment rates prior to FY90. The table below lists our first term reenlistment rates from FY85-95, the second term reenlistment rates for FY90-95, and the reenlistment rate for our intermediate and career Marines for FY85-95. FY96 data as of 31 March is also presented.

FY	FIRST TERM	SECOND TERM	CAREER	INT. AND CAREER
85	36.3			83.1
86	46			83.5
87	34.7			79.9
88	26.3			76.2
89	26.1			79.3
90	28.3	64.5	92.9	80.6
91	19.3	55.7	92.7	72
92	18.7	56.2	95	71.4
93	14.6	53.9	96.6	69.1
94	19.3	60.2	95.7	73.6
95	20.4	50.5	95.3	73.1
96	35.8	59.5	94.2	76.7

Since FY91, the Marine Corps has controlled first term reenlistments to the needs of the career force. Once Marines reenlist for the first time, they are allowed to continue service as long as they continue to meet retention standards. For FY96, the first term reenlistment rate is artificially high due to our reenlistment process. We expect the rate to be 20% by years end.

LEVEL LOAD ACCESSION PHASING

Question: The Budget Highlights book says "The Marine Corps has adjusted its accession phasing plan so that gains are no longer "level loaded" through the fiscal year." This seems contrary to good fiscal management. Please explain the rationale for this decision.

Answer: Marine Corps decision makers concluded in May 1995, that the Marine Corps could not adhere to the level load concept while simultaneously maintaining high quality recruit input. This is primarily due to the disproportionate availability of high quality accessions that closely mirrors high school graduation timing (summer months).

To enable us to meet accession requirements, we instituted trimester accession phasing. Under the trimester concept, we access, "ship," 32% of the accession mission during October - January, 22% during February - May, and 46% during June - September. The trimester concept allows the recruiting command greater flexibility in meeting monthly shipping quotas and allows recruiters to focus their effort in the primary recruiting market, i.e., high school graduates. Additionally, contracting more *quality* recruits who are accessed later in the year, i.e., June - September trimester, reduces first-term attrition which results in a slightly lower accession mission.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

KC-130 AIRCRAFT

Question: General Krulak, I know the Marine Corps relies heavily on its KC-130 Tanker Aircraft for both in-flight refueling and logistics support. I believe that your Reserve KC-130s are relatively new airplanes. But what about the Active fleet? Those aircraft have been around a long time. Is it time to start replacing them?

Answer: Senator Leahy, as you know, the KC-130 has been a valued workhorse for the Marine Corps since we accepted our first KC-130F in March, 1960.

You are also entirely correct regarding our Reserve KC-130s. We have completed the modernization of the Reserve KC-130 fleet and our last two aircraft will be delivered later this year. The Reserve KC-130Ts, as a whole, average 7 years of age. On the other hand, our Active duty KC-130F and KC-130R aircraft average 35 and 20 years of age, respectively. In fact, the KC-130Fs are the oldest aircraft in the Marine Corps inventory.

Fortunately, the new KC-130J is available. With its increase in speed and range, its new "glass" cockpit and night vision enhancements, and its improved air refueling system, this aircraft will provide the Marine Corps with a modern air-to-air refueler and tactical transport aircraft well into the 21st century. The acquisition objective for the KC-130J is 51 aircraft to replace the KC-130F and KC-130R. Additional funding of $196 million would fund an initial procurement of 4 KC-130Js in FY-97. Fiscal constraints preclude inclusion of these funds, but we hope to pursue this initiative in future budget submissions.

LAV-AD

Question: General, last December the Marine Corps approved the Milestone III production decision for the Light Armored Vehicle, Air Defense (LAV-AD) and subsequently awarded a contract for 17 vehicles. The LAV-AD will provide expeditionary Marine Forces a mobile, armored air defense capability against both aircraft and helicopters. Is there still an unfunded requirement for LAV-ADs? For how many?

Answer: We had planned to procure 21 of these vehicles, however, unit cost and available programmed funds only allowed 17. We have restructured our fielding plan to incorporate the lower force structure.

SEA DRAGON

Question: General, I am intrigued by your ideas about how the Marine Corps should evolve to face the future. I understand that you have an initiative underway called SEA DRAGON, which is examining novel ways of organizing and equipping Marines. Is there any money in the President's FY 1997 budget request for a continuation of SEA DRAGON? How much would be needed this year to keep these initiatives viable?

Answer: Senator, thank you for asking about SEA DRAGON. SEA DRAGON is one of several important initiatives currently underway at the Commandant's Warfighting Lab. As you know, SEA DRAGON is our overarching approach for exploring new concepts and technologies to implement "Forward ...From the Sea" and "Operational Maneuver from the Sea."

As you know, the Warfighting Laboratory and SEA DRAGON did not exist before I became Commandant. That is not anything negative about my predecessor; it is just the reality. It is an initiative I instituted. We have internally realigned $3.5M into FY 1997 for SEA

DRAGON. Our projected Fiscal Year 1997 funding requirements for SEA DRAGON are $52 million.

Because it is a new initiative, we did not have the opportunity to address it in this budget submission. We are currently working internally to do what we can and will address this requirement in FY 1998.

SUBCOMMITTEE RECESS

Senator STEVENS. We thank you very much for your courtesy. I have discussed with the Admiral a little sentimental visit this committee wants to make sometime soon, and we will be glad to clue you in on that, John and Chuck. We will have to have you join our committee. We would like to visit the U.S.S. *Stennis*.

Mr. DALTON. We would welcome having this committee aboard the *Stennis*.

Thank you very much, Mr. Chairman.

Senator STEVENS.Thank you.

[Whereupon, at 12:13 p.m., Wednesday, March 27, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 17.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, APRIL 17, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Inouye, Johnston, and Bumpers.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

STATEMENT OF SHEILA E. WIDNALL, SECRETARY OF THE AIR FORCE

ACCOMPANIED BY GEN. RONALD R. FOGLEMAN, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. The committee will come to order.

I am told Senator Inouye is stuck in traffic, so we will go ahead without him and let him make a statement when he comes.

I am pleased to welcome Secretary Widnall and General Fogleman once again to our committee. During the recess, Senator Inouye and I had the opportunity to go out to the Pacific and we visited with leaders of the military in the Pacific, and particularly General Lorber at PACAF. All of his staff were very gracious to us. I think that their leadership is really paying great dividends, and we are pleased to see the progress that is being made out there, despite the force cutbacks. The Air Force is still the central component really, I think, of our extended strategy now out our way in the Pacific.

We are committed to work with you to support your readiness and modernization priorities. And we have some substantial problems in making certain that we fit all of those pieces of the puzzle into that montage that takes us out, hopefully, to a balanced budget in 2002, without really impairing our readiness and modernization and the capabilities of our armed services.

We have to ask you to help us understand the significance of your requirements versus the cost of some of these new items, and there are a substantial number of these new measures that really drive increased costs for the future. But we are really pleased to be able to work with you. I think that what we have seen in the last week to 10 days shows us, at least in terms of the Pacific area, that your part of the Department of Defense is well manned, well operated, and really has their eye on the problems that we all face in terms of costs, while emphasizing the need to modernize.

So let me reserve the time for Senator Inouye, when he comes, to make his opening statement. But I, again, am most pleased to see you here, and want to have your views. We do have a couple of significant issues still in conference, not the least of which is the multiyear contract for the C–17. I am looking forward to your statements, and welcome you, Secretary Widnall.

SUMMARY STATEMENT OF SECRETARY WIDNALL

Secretary WIDNALL. Thank you, Mr. Chairman. Thank you for the opportunity to appear today with General Fogleman to discuss the plans and priorities for our Nation's Air Force. Obviously, we are as busy today as we have ever been, supporting hundreds of commitments worldwide. And although our tools have changed over the years, I think you will see that we come to you with ageless concerns: to attract and retain the quality people we need to perform our missions and to proceed with the modernization programs we have defined, in close consultation, with the CINC's to ensure our future capabilities. As in the past, we are submitting an extended posture statement for the record, but we would both like to take a few minutes to focus on some priorities.

The Air Force has had a comparative break in modernization over the past few years. We could afford that for a limited time, given the high quality of our fielded forces, but it is imperative now that we move ahead with our new programs. So we have carefully constructed a time-phased modernization plan that balances the needs of the CINC's against fiscal realities. Over the next decade, that plan meets the operational requirements established by our combatant commanders, and it postures the Air Force to provide America the most capable and efficient air and space forces possible, both for today and for the future.

Our most important near-term priority, the C–17, is designed to fill our most urgent operational shortfall. The CINC's identify strategic lift as DOD's greatest single deficiency. The C–17 will satisfy this demand and maintain the health of our strategic airlift fleet. With its ability to operate from small airfields and in hostile environments, to deliver oversized and outsized cargo wherever we need it, the C–17 is an essential resource for our warfighters. We have all seen its capabilities in Bosnia. And I think the advantages that it offers are clear.

Over the midterm of our modernization efforts, the focus is on conventional bombers and smart munitions upgrades, to provide our national command authorities and the CINC's a quick-reaction, global capability, while other forces are still in the deployment phase. In the long term, our most urgent need is to modernize our fighter force. By the time the F–22 reaches IOC in 2005, the F–15 will be in its fourth decade of active service as our front-line fighter. We have concentrated on upgrading that aircraft to preserve its capability. But airframes age, and the nations around the world have caught up with us in technology.

We must ensure that we can win air supremacy against any opponent, for only that supremacy offers our forces freedom of action throughout the battle space. In the coming decade, the F–15 will not give us that assurance. The F–22 will. Its combinations of supercruise, stealth, and advanced avionics will make it an unmatchable adversary. It will embody the information revolution in warfare.

More importantly, the air superiority it guarantees will enable us to protect and operate the range of information platforms—the AWACS, JSTARS, and the rivet joint being the most obvious examples—that we rely on to give our commanders the information dominance they need to win. It is the only fighter, either fielded or in development today, that will have that capability. It is the linchpin to success, not just for the air battle, but for the theater campaign as a whole.

Five years after the F–22 reaches IOC, the JSF will enter the force. As the F–16 complements the F–15, providing a lower-cost multirole complement, so the JSF will complement the F–22, both operationally and technically. We have structured the JSF program to take full advantage of the technical advances developed by the F–22, and to leverage its operational capabilities as well.

Like the F–15, the F–16 will be entering its fourth decade as the most numerous fighter in our inventory by the time its replacement arrives on the scene. Like the F–15, the F–16 has been upgraded continually during its lifetime. But it is reaching the extent of useful developments that can be done within the limitations of its airframe. The JSF will fill its place in our inventory and provide the advanced avionics and reduced signatures necessary to survive on the battlefield of the 21st century. The JSF will fill another role performed admirably by the F–16 for two decades now of providing an affordable front-line fighter for our friends and allies around the world. It will provide the next generation fighters for both the Navy and the Marine Corps, and is being designed and built in a remarkably joint program.

Thirty years ago, our predecessors on both sides of this table structured the fighter force that has served this Nation so well in the decades since. It is now up to us to show that same foresight as we look toward the uncertain world of tomorrow. We owe that to this Nation and to the young people of today, who will face the risk of combat in the decades ahead.

Finally, several of our ongoing programs span all three modernization phases, such as the space-based infrared system and the evolved expendable launch vehicle, which will provide continuous assured access to space. To execute this modernization plan effectively, it is imperative that we streamline our acquisition processes and improve our business practices. It is a pass-fail item, and we are already beginning to reap some benefits.

For instance, the joint direct attack munition, JDAM, will be delivered to the users 1 year early, with a cost reduction of $1.57 billion, and the PACER CRAG program, a navigation package for the KC–135, eliminated military specifications and reduced reporting requirements to save $90 million in planned acquisition costs. To date, our acquisition reform efforts in programs such as the C–17, JDAM, MILSTAR, and GPS have resulted in a total cost avoidance of $13 billion in the Air Force alone. We continue to find ways to become more efficient; and you can help us with a few.

For instance, we are requesting legislative approval for the C–17 multiyear procurement, a sound business decision. The $900 million cost avoidance allows us to use our resources more efficiently, applying them toward other key modernization efforts. Besides streamlining, we are taking a hard look at commercialization and privatization options for virtually everything from computers to ground maintenance to base security.

This effort allows us to capture the vitality and efficiencies of the commercial world. Since our current focus is on depot maintenance, I have recently visited Newark, Kelly, and McClellan Air Force Bases to check on our progress. We are making strides, but a number of barriers remain. For instance, the law limiting our private sector depot efforts to 40 percent of our depot funds must be changed to allow flexibility and ensure success in this area. Not only does this help contractors work more efficiently, it saves taxpayer dollars.

And the privatization option offers other benefits as well. It is good for readiness, ensuring uninterrupted access to unique facilities and a skilled work force for repair of critical items. It increases flexibility, provides best value, and frees up funds for modernization. And it is good for communities, since it allows the use of unique facilities by the private sector for both Government and commercial work. Despite some upheavals, our people realize the advantages inherent in our privatization efforts. They are enthusiastic about the possibilities and ready to help make it work.

That brings me to the next major Air Force priority: attracting and retaining motivated, high-quality people. You have helped us measurably in the past in these areas. In particular, we appreciate your help in funding our advertising and tuition assistance programs, as well as your support for pay raises and real property maintenance.

As a force that relies heavily on its technological advantage, we must retain our well-trained, experienced men and women. Quality of life is the No. 1 reason they remain in the Air Force. In fact, when we ask our people how they are handling the stresses of new missions and high operations tempos, they consistently tell us that they are ready to face up to just about anything. They understand the importance of what they are doing. They ask only that their families be well taken care of.

Thank you again for your support in the past, and we look forward to increased success guaranteeing the welfare of our people.

Like our approach to modernization, we want a balanced approach toward these people-first programs. So our strategy focuses on seven priorities: compensation and benefits, housing, health care, balanced personnel tempo and operations tempo, community and family programs, retirement, and educational opportunities. The posture statement describes in more detail our efforts in each of these areas. Concentrating on these programs, we will strive to provide our professional airmen with the quality of life they deserve. Only then can we ask of them the personal sacrifice and commitment that our profession requires.

Just last month, in fact, I got a firsthand look at that commitment. I visited our forces in Tuzla. And there, amid the mud and the devastation that is visible everywhere, I saw the dedication to duty, to making a difference, that is such a feature of our forces as they operate around the world. I came away with a renewed pride and respect for our forces operating so effectively and enthusiastically in this harsh environment. In Bosnia, as around the globe, American forces are the most visible forms of courage, trust, and cooperation on the planet. Air Force men and women have long been a part of the effort to build bridges and share values.

PREPARED STATEMENT

Over the past year, your Air Force has acted decisively to curb war, to feed starving people around the globe, to forge stronger bonds of friendship, and to further the spread of liberty into nations which have never before enjoyed its blessings. We will continue these efforts in the year to come and in the decades to follow.

Thank you.

[The statement follows:]

Prepared Statement of Secretary Sheila E. Widnall and Gen. Ronald R. Fogleman

INTRODUCTION

Good morning, Mr. Chairman and Members of the Committee. We welcome this opportunity to discuss our plans to modernize our force and support the men and women of the nation's Air Force—the world's premier air and space force. To maintain this air and space advantage, we have built a comprehensive, time-phased modernization plan to meet the needs of the National Command Authorities (NCA) and the Commanders-in-Chief (CINC's). With your support, we will achieve these objectives and preserve an acceptable quality of life for our people. Your support will ensure the Air Force continues to provide strong and credible airpower options in pursuit of our nation's security goals.

As we approach the fiftieth anniversary of our Service, we are proud and honored to say: we are the nation's Air Force—the only American military institution organized, trained, and equipped solely to exploit air and space power in the defense of our nation. We exist to fight and win our nation's wars. To that end, we are dedicated to providing America the most capable and efficient air and space forces possible—today and in the future. As a direct result, our forces give dominant warfighting capabilities to the U.S. CINC's. Specifically, the Air Force provides the joint force commander with a broad range of air and space capabilities, to include: Air Superiority, Space Superiority, Global Mobility, Precision Employment, and Information Dominance.

The warfighting advantages the nation's Air Force brings to the joint table spring from the expertise and dedication of our people and the technological edge we maintain in our force structure. Our well educated, technically competent, and highly motivated men and women are committed to keeping this great nation strong and free. That is why we consistently invest in cutting edge technologies that exploit the inherent operating advantages of air and space. The synergy of our dedicated, professional people and our technologically advanced force structure produces a distinct perspective on how best to apply military power through the all-encompassing air and space media. This global perspective provides our national leadership a more versatile range of military options—options that place fewer American lives at risk—to accomplish security objectives.

THE NATION'S AIR FORCE

Airpower increases the alternatives available for all Service components so they can fight effectively and respond quickly to changing circumstances. Airpower can selectively degrade or erase the capabilities that support an enemy's war effort, thus diminishing or eliminating an opponent's options and ultimately defeating his strategy. This ability to limit enemy options, while simultaneously boosting the effective combat power of all our forces, makes U.S. air and space power a dominant force in its own right, as well as an indispensable force multiplier in modern combat.

The nation's Air Force is ideally suited for the challenges posed by today's security environment. Our men and women have built upon our investment in technology to create robust air and space forces capable of achieving decisive advantages against potential aggressors. As a result, your Air Force is first to arrive and first to fight. We provide global situation awareness. We employ while others deploy. We carry the critical leading-edge components of our country's land forces to the fight and control the air to provide all forces freedom of maneuver. We sustain military forces during the fight and contribute decisive air and space assets across the theater and around the globe.

Expertly trained and highly skilled men and women are the backbone of the nation's Air Force. Today, our Service has 396,000 members on active duty, 188,000 members in the Air National Guard and Air Force Reserve, and 186,000 civilians. This year, 81,000 are forward stationed overseas and on average nearly 13,000 airmen are deployed in support of exercises and contingencies worldwide. Of that latter group, nearly 9,000 are currently deployed, and we anticipate that number increasing as we support major contingency operations overseas, such as Operation Joint Endeavor, and Air Expeditionary Force (AEF) deployments. These forces demonstrate U.S. commitment and resolve—not over the horizon, but in direct contact—24-hours a day.

When called, the talented and professional men and women of the nation's Air Force respond. During the past year, that meant delivering medical supplies to Albania, flood relief to Germany, and earthquake relief to Japan. It also included supporting United Nations (U.N.) mandates in Operations Deny Flight, Provide Promise, Deliberate Force, and Joint Endeavor over Bosnia; Operation Provide Comfort over Northern Iraq; Operation Southern Watch over Southwest Asia; Operation Safe Border patrolling the border separating Ecuador and Peru; Operation JTF-Bravo in Honduras; Operations Uphold Democracy and Sea Signal in the Caribbean; and supporting the U.N. Mission in Haiti.

The Air National Guard and Air Force Reserve have played an important role in supporting contingency operations. As the pace of operations increase, we rely even more on our Air National Guard and Air Force Reserve partners. They serve side-by-side with active duty airmen, performing the full range of missions that support joint and multinational operations. Theater commanders welcome the contributions of our Guard and Reserve units because they know these outfits are well equipped and expertly trained. With the dedication of our citizen airmen and with initiatives like associate flying programs, the Air National Guard and Air Force Reserve are integral to the success of the Total Force.

Air Force civilians are also key members of our Total Force team. From the flightline to the control room to the launch pad to the headquarters, our civilians give us functional expertise and institutional stability—they are our corporate memory. Some deploy with our combat forces, while others provide stability at home as our military forces deploy. In addition, as service members move between assignments, our senior civilians provide continuity in leadership, particularly during periods of high turnover. Together, we will carry the nation's Air Force into the next century.

GLOBAL REACH-GLOBAL POWER

Whether conducting operations in peacetime, in times of crisis, or in war, we are fully committed to supporting the CINC's—the nation's warfighters. The air and space capabilities our airmen bring to the joint team are in higher demand than ever. We have maintained these capabilities even while reducing our overall force structure. We succeeded because we started with a clear strategic vision. That vision, "Global Reach-Global Power," sharpened our focus on our core air and space contributions to the National Military Strategy, allowing us to prioritize our modernization investments and shape our force drawdown.

The principles underlying "Global Reach-Global Power"—Sustain Deterrence, Provide Versatile Combat Forces, Supply Rapid Global Air Mobility, Control the High Ground, Build U.S. Influence—proved successful during Operations Desert Shield and Desert Storm. Since then, that national strategy has been more rigorously tested by global involvement in operations in Bosnia, Iraq, Rwanda, Somalia, and Haiti. It has also been tested here at home in California, Texas, Florida, New York, Oklahoma, along the banks of the Mississippi and Missouri Rivers, in Puerto Rico, and elsewhere, fighting fires, delivering relief supplies, and responding to natural disasters. Reflecting an operations tempo (OPTEMPO) far beyond our Cold War norm, these and other operations involve tens of thousands of flying hours and the sacrifices of many military members and their families. With these as examples, we remain confident that Air Force capabilities will continue to serve our nation well into the next century.

Consequently, with last year's updated National Military Strategy, focusing on "flexible and selective engagement," we are more certain than ever that our guiding construct hit the mark. Today, the nation's Air Force—Active, Guard, Reserve, and civilian—is fully prepared to fight and win our nation's wars. Since the 1992 update of our vision, we have added Information Dominance to the original five objectives to explicitly reflect the importance the Air Force places on controlling and exploiting information. These six objectives serve as the building blocks we use for planning and programming future forces.

SUSTAIN DETERRENCE

Our air and space forces are key to deterring hostile actions against the United States, our allies, and our vital interests. This is as true today as it was during the Cold War. Nuclear deterrence remains the cornerstone of national security. We provide the National Command Authorities a ready and responsive ICBM force in addition to a nuclear-capable, long-range bomber force. We also provide a reliable warning network, a secure and survivable command and control capability, an effective attack characterization and assessment capability, and dependable strategic reconnaissance platforms. All these assets contribute to the credibility and effectiveness of America's nuclear deterrent force.

Our versatile fighters and long-range bombers also offer the nation a strong, credible conventional deterrent. Their conventional munitions can stop an aggressor in his tracks. Our bombers can employ while other forces are still deploying. Conventional upgrades to our bomber force combined with acquisition of a family of smart munitions, particularly the Joint Direct Attack Munition (JDAM), Joint Stand-off Weapon (JSOW), and Joint Air-to-Surface Stand-off Missile (JASSM), will enable our forces to attack a variety of targets anywhere in the world, day or night, in good weather or bad, within hours of tasking.

PROVIDE VERSATILE COMBAT FORCES

The Air Force offers the quickest response and longest range forces available to the President in a fast-breaking crisis. We can deter, deploy for influence, or rapidly employ with lethal force anywhere in the world. Air Force bombers can launch from the U.S. and reach any point on the globe with precise, lethal strikes in 20 hours. We vividly demonstrated our long reach in July 1995 when the men and women of Dyess AFB, Texas, launched and recovered two B–1's that flew non-stop around-the-world while delivering ordnance on military training ranges in Italy, Korea, and Utah.

Our bomber roadmap is coming together. With continued upgrades, our planned bomber force of B–52's, B–1's, and B–2's will sustain deterrence, provide flexible, sustainable long-range combat power, and demonstrate resolve with their global presence capabilities well into the next century. As our highest mid-term modernization priority, the integration of precision munitions and other conventional upgrades to our bomber fleet will provide the U.S. with a high leverage force by the turn of the century. The B–2, for example, will have an accurate capability with the GATS/GAM (GPS-aided Targeting System/GPS-aided Munition) this July: furnishing us a near term capability to independently target 16 separate aimpoints on a single pass. Our modern bombers provide a force we can capitalize on for the defense of the nation, rapid crisis response, and warfighting. Air Force bombers provide the NCA with a unique long-range, lethal precision strike capability no other force can match.

Our rapidly deployable fighter forces provide us the staying power to overwhelm an opponent's forces, infrastructure, and command elements. To maintain the robustness of our fighter forces and continue to support high-tempo, worldwide operations, we must continue our ongoing F–15E and F–16 recapitalization programs and fleetwide high-leverage system enhancement efforts.

In September 1995, NATO air operations in Bosnia—Operation Deliberate Force—once again proved airpower can have a decisive role when serving achievable, clear policy objectives. Airpower's efforts in helping to lift the siege of Sarejevo saved lives and helped pave the way for a negotiated settlement. Our successes over Bosnia have also demonstrated the expanded range of military options available to our nation's leaders when we have unquestioned air dominance.

Indeed, air superiority provides the shield that makes all other operations feasible. During World War II, all sides learned that air superiority was necessary to conduct ground operations successfully. From the beaches of North Africa and Normandy to the amphibious landing at Inchon, from the valiant defense of Khe Sanh to the famous "left hook" during the Gulf War—American air superiority proved vital. Maintaining air superiority in a major conflict or a lesser contingency requires operations deep within hostile airspace to eliminate enemy opportunities to conduct long-range reconnaissance, launch stand-off weapons, or to gain any other benefit from air operations. The F–22 incorporates revolutionary advances in airframe, engine and avionics technology, ensuring the Air Force retains the critical combat edge in air superiority.

The F–22 is the first—and the only to date—major weapons system designed to incorporate the full potential of the "Revolution in Military Affairs (RMA)." Today all the Services are seeking to understand the impact of the RMA. While others debate the effects of the RMA, the Air Force is directly investing in it. Clearly, in contrast to other more evolutionary weapons programs, the F–22 represents a quantum leap in capability for the CINC's.

The F–22 will combine stealth, supercruise, and integrated avionics in a highly maneuverable platform that will be able to deploy rapidly to heavily defended enemy territory and achieve first-look/first-shot/first-kill. Stealth will enable the F–22 to gain surprise by entering combat undetected. Supercruise will allow the F–22 to range the battlefield rapidly and more effectively employ its weapons. Integrated avionics, including on and off-board multi-sensor collection and data fusion, will provide the pilot an unprecedented level of situational awareness. Two-dimensional thrust vectoring will greatly enhance the F–22's maneuverability, permitting a quick reaction to airborne and surface threats. Together, the F–22's stealth, supercruise, and integrated avionics will give America the most advanced, practical, and potent weapon system for ensuring freedom of operation and minimizing risk and casualties wherever military forces operate.

Many of the technological advances that are making the F–22 revolutionary also serve as critical components for the Joint Strike Fighter (JSF)—our F–16 replacement. Previously known as the Joint Advanced Strike Technology (JAST), JSF will likely serve as the foundation for other future aircraft designs. The F–22 and JSF will help us retain America's aerial combat advantage. So will improvements we are making to the current family of smart weapons.

In addition to advanced systems, we will continue to require fully trained, combat ready aircrews. To keep our forces fit to fight, we must have access to training ranges. That access depends on cooperative use arrangements with those who have competing interests for the same land and airspace. For our part, we are committed to responsible custodial care, preserving the environmental and cultural uniqueness of our nation's resources. To guarantee that our combat aircrews remain prepared to meet the security needs of our nation, assured access to local training ranges and airspace is an Air Force priority.

Supply Rapid Global Air Mobility

America's air mobility fleet gives our nation the speed and agility to respond to the full range of contingencies—from airlifting or airdropping troops and equipment during a crisis to delivering supplies after a natural disaster. No other nation in the world has this capability.

Our airlifters and tankers offer the CINC's the ability to influence operations throughout the theater. Our air mobility aircraft can deploy fighting forces or provide humanitarian assistance worldwide. They enable support forces to remain airborne longer and combat forces to strike deeper. They airdrop or insert troops and equipment, sustain operations throughout the theater, provide lift for critical supplies, and provide emergency aeromedical evacuation.

To ensure we maintain these capabilities, we must modernize the fleet. Our workhorse for the last 30 years, the C–141, has served us well but is nearing the end of its service life. That is why the C–17 is our highest priority near-term modernization program.

The November 1995 Defense Acquisition Board (DAB) decision to procure 120 C–17's was the right one for the nation. The C–17 will ensure we can meet airlift requirements during major regional contingencies—especially during the crucial first 30 days. With its ability to operate from small airfields and in hostile environments, to deliver oversize and outsize cargo to forward operating areas, and to increase throughput to the region, the C–17 is an essential resource for the warfighter. It has already proven its worth in operations from the Caribbean to Bosnia.

In February, the DAB made another decision that is right for the nation: it approved a C–17 multi-year procurement plan. This seven-year contract completes the Air Force requirement for 120 C–17 aircraft at the lowest possible price—clearly, this is the best value for America. Acquisition streamlining initiatives have already dramatically reduced the cost of the C–17. This multi-year procurement proposal crowns our successful cost reduction effort. By providing contractors and subcontractors with a stable, extended buy profile, we will be able to obtain significant efficiencies over the course of this program. This contract, if approved, will save the nation nearly $900 million.

We are also ensuring our other mobility assets remain viable. For example, we are modifying the Air Force's KC–135 air-refueling fleet and the C–5 force to improve performance, reduce maintenance required, and reduce operating costs.

Control The High Ground

The nation's Air Force exploits air and space to provide access to any point on the earth's surface. This capability gives us an extraordinary military advantage. Indeed, our space systems have become an indispensable part of our versatile combat forces. For that reason, the Air Force is pursuing a number of key space modernization programs.

Not unlike the airlift needed to bring combat and support forces to the fight, spacelift deploys critical space systems into orbit. The nation depends on routine, affordable, and reliable access to space, but current spacelift is too expensive. The Evolved Expendable Launch Vehicle (EELV) program will provide affordable spacelift to military and commercial users. For the military, affordable spacelift will facilitate replacement of older space platforms, such as Defense Support Program (DSP), as they reach the end of their service life. In the case of DSP, we are already pursuing its replacement, the Space-based Infrared System (SBIRS) High Component, to meet the increasing demands of theater ballistic missile warning.

More than in most technical areas, space technology has historically seen a blurring of the lines between military and civilian use. The widespread commercial use of the Global Positioning System (GPS) is one example. In a bit of role reversal, however, the Global Broadcast System (GBS) is borrowing from commercial innovations to satisfy military requirements. As the DOD executive agent for multi-user space systems, the Air Force proposes to lead this fast track program through a series of three phases, including buying commercial direct-broadcast services, flying a GBS package on other DOD satellites, and finally launching our own objective system to fulfill all joint user wide band communication requirements. Managing the GBS program from within our Military Satellite Communications Program Office will ensure maximum synergy with other high value military satellite communication programs, such as MILSTAR and Defense Satellite Communications System.

The establishment of the DOD Space Architect, to work closely with the Intelligence Community Space Architect, has been a key step toward a future, fully integrated space capability for the nation. This step, building upon previous close cooperation efforts like the SBIRS Study, holds the promise of reducing architecture costs and laying the groundwork for integrated development and acquisition of future space forces.

Ensure Information Dominance

Dominating the information spectrum has become as critical to warfare as occupying the land or controlling the air. In military operations, information is a weapon used not only to support other operations but also to attack the enemy directly. Within today's information domain, events are seen and felt at the speed of light. If we can analyze, assess, and act faster than our adversary, we will win. As the DOD executive agent for Theater Air Defense Battle Management Command, Control, Communications, Computers, and Intelligence (BMC^{4}I), the Air Force commits time, energy, and resources to maintain this critical edge over potential adversaries.

At the heart of this process is information—collected, processed, and distributed through a joint BMC^{4}I architecture. This "system of systems" consists of Air Force space platforms such as MILSTAR and GPS; aircraft such as the U–2, RC–135, Joint STARS, AWACS, and Unmanned Aerial Vehicles (UAV's); and ground command and control elements comprising the Theater Air Control System. During Operation Deliberate Force, this integrated joint BMC^{4}I architecture significantly increased the situational awareness of U.S. and NATO political leaders and military forces. This awareness improved our capacity to shape events on the ground and to respond rapidly as each situation required.

Rapid technological improvements in storing, processing, and disseminating data have sparked a greater emphasis on the role of information operations in warfare. The Air Force recently published "Cornerstones of Information Warfare" to provide a sound doctrinal basis for exploiting information capabilities while addressing our own vulnerabilities. The recently activated 609th Information Warfare Squadron at Shaw Air Force Base, South Carolina will be responsible to a Joint Forces Air Component Commander (JFACC) for coordinating a vast array of in-theater information requirements. It will orchestrate how we exploit information to support traditional operations, how we protect our own information architectures, and how we plan to attack an enemy's information capabilities. An important part of this squadron's responsibilities will include the ability to "reach back" for specific tools provided by the Air Force Information Warfare Center at Kelly Air Force Base, Texas and the Air Force Space Warfare Center at Falcon Air Force Base, Colorado.

Build U.S. Influence

The core capabilities provided by the Air Force allow the NCA to extend a helping hand, to use airpower for diplomatic and humanitarian purposes, and to support other U.S. objectives worldwide. Indeed, the first arrival of U.S. airlifters demonstrates commitment and resolve few can ignore. This presence is real and it extends across the globe. To put it into perspective, in 1994 the U.S. Transportation Command (USTRANSCOM) executed the equivalent of five Berlin airlifts in support of operations in Somalia, Rwanda, Bosnia-Herzegovina, and Haiti. During the past year, we have kept up the same pace, supporting U.N. mandates in Iraq and Bosnia and conducting humanitarian mission around the world.

Global access and influence ultimately depend on the bonds of alliance and international cooperation. Partnership-for-Peace (PFP) is one of many initiatives the Air Force supports that underscore this conviction. The forward stationing of our forces, on-going contingency operations, and multi-national exercises create numerous opportunities to strengthen alliances and project U.S. influence. The Air Force, through the Air National Guard, also supports the National Guard State Partnership Program, linking U.S. states to Central and Eastern European nations. These efforts join International Military Education and Training (IMET) and technical training initiatives, such as the Inter-American Air Forces Academy, and combine with the work our security assistance personnel and air attachés do around the globe to foster stability, sustain hope, and provide relief. Efforts like these are samples of Air Force programs that pay direct dividends by building trust and cooperation among our friends and allies.

BUILDING THE FUTURE AIR FORCE

As stewards of the nation's air and space forces, we have produced forces that are ready, versatile, and tailored to support our National Security Strategy. We will continue to execute our responsibilities with the disciplined approach we have followed in the past. This approach is based on four key commitments:

—We will define our operational requirements and provide national capabilities with a clear vision of what we contribute to the U.S. military's joint team.

—We will fill those requirements with a lean and agile acquisition system.

—We will recruit quality people and ensure they are trained and motivated to operate in a disciplined manner and to exhibit and respect Service core values.

—We will ensure our people and their families have the quality of life they deserve as they serve our nation.

BALANCED, TIME-PHASED MODERNIZATION

In 1990, the Air Force undertook a thorough analysis of its future potential contributions to national security. The result was "Global Reach-Global Power," which we published in 1990. In 1993, the Department of Defense conducted a bottom-up review (BUR) of our National Military Strategy. The BUR confirmed one of the basic premises of "Global Reach-Global Power": "The likelihood that U.S. military forces will be called upon to defend U.S. interests in a lethal environment is high, but the time and place are difficult to predict." Events since 1993 have confirmed this assumption.

The strategic planning effort we accomplished after the Cold War focused the Air Force on core air and space contributions to the National Military Strategy, helping us prioritize modernization investments and shape our force structure. By drawing down forces early we have been able to maintain ready forces to support a key component of the BUR strategy, to fight and win two nearly simultaneous Major Regional Conflicts, while retaining the ability to respond to a wide range of lesser contingencies, without abandoning our modernization priorities.

To make the most of the nation's investment, the Air Force carefully constructed a time-phased modernization plan that synchronizes the sizing and timing of multiple programs. This approach helped us achieve our modernization objectives without creating "bow waves" in out-year budget requirements. In the past, the "bow waves" were the result of "small changes" in programs to achieve short-term savings. These "small changes" often resulted in large costs and disruption of numerous programs in the out-years.

Our time-phased approach covers near-term, mid-term, and long-term efforts. Coupling time-phasing with aggressive acquisition reform initiatives ensures that the Air Force will continue to provide our nation a broad range of capabilities at an affordable price.

Near-Term Priorities

Our CINC's identify strategic lift, air and sea, as DOD's greatest single deficiency. In response to this need, the C–17 is the Air Force's foremost near-term modernization priority.

Our C–141's are showing signs of age. At the same time, demand for airlift has increased. Based on a comprehensive analysis of strategic and tactical airlift requirements, aircraft and contractor performance, and cost effectiveness, the DAB recommended that we plan, program, and budget for the procurement of 120 C–17's. Our plan includes taking advantage of a stable multi-year procurement contracting environment at high production rates to offer substantial savings for C–17 acquisition. This will not only provide a savings, but also will enable us to fill the gap in needed airlift sooner and finish the 120 airframe C–17 procurement prior to the peak expense years for the F–22.

The C–17 has been flying operational missions since October 1994, supporting operations in Southwest Asia, Panama, the Virgin Islands, and now in Bosnia. Concurrently, our acquisition program has exceeded expectations with the last 12 aircraft delivered to the Air Force ahead of schedule. The success of last year's Reliability, Maintainability, and Availability Evaluation (RM&AE) is solid proof of the aircraft's performance. The C–17 exceeded all key performance parameters during this rigorous thirty-day evaluation. It is clear, this is the right airplane at the right time.

In addition to these efforts to upgrade our mobility forces, we must continue to sustain the health of our combat forces until the arrival of our next generation forces, particularly the F–22 and JSF. To this end, we are continuing to recapitalize our F–15E and F–16 fleets. We are also pursuing modernization upgrades to our fighter forces and purchasing enhanced conventional munitions, such as JDAM and sensor-fused weapons, to improve their effectiveness.

Mid-Term Priorities

Conventional bomber upgrades and smart munitions improvements are Air Force mid-term modernization priorities.

The B–2 will give America a credible capability to penetrate advanced defenses and conduct precision strikes—nuclear and conventional—anywhere in the world. The B–1 will supplant the B–52 as the workhorse of our bomber fleet, while the B–52 will continue to provide a nuclear hedge and offer long-range stand-off.

Bomber upgrade programs are helping us integrate our newest conventional weapons onto all our bombers. These upgrades will give our non-stealthy B–52's and B–1's multiple target, stand-off, precision strike capabilities as well as increase their survivability. The combination of highly capable B–2's with upgrades to our existing bombers provides an affordable approach to maintain the minimum overall long-range strike capability required to "swing" between two Major Regional Conflicts.

Critical to the effectiveness of our bombers and our fighters is the continued development and procurement of smart and precision guided weapons. Stand-off, smart weapons extend the range, increase the lethality, and improve the survivability of older and newer aircraft alike. The JDAM, JSOW, and JASSM provide a balanced and affordable approach for increasing the versatility and lethality of Air Force, Navy and Marine Corps aircraft.

JDAM will significantly improve our ability to conduct adverse-weather, round-the-clock operations. JDAM adds an Inertial Navigation System and GPS-guided nose and tail kit to the MK–84 general purpose and BLU–109 penetrator bombs. JSOW is a 1,000 pound class accurate glide weapon which provides us a low cost option for attacking highly defended targets from intermediate stand-off ranges. JASSM is a precision long-range stand-off weapon designed to penetrate and attack targets in high threat areas. JASSM will significantly increases our capability to hit critical, high value targets in the early stages of a conflict.

Long-Term Priorities

The F–22 is our most important long-term modernization priority—the need for air superiority is unquestioned. The F–22 will guarantee air superiority well into the next century. Its airframe and powerplant provide a highly maneuverable stealth platform capable of extended supersonic flight. Revolutionary integrated avionics—on-and off-board multi-sensor collection and data-fusion—will provide F–22 pilots unequaled battlespace awareness. The unique capabilities of the F–22 will enable the Air Force to dominate aerial environments—operating at will over hostile or contested territories, attaining unprecedented first-look, first-shot, first-kill successes, while protecting the many high-value assets necessary for success in modern military operations.

We have sized and sequenced the F–22 Program to meet critical warfighting requirements at a cost the nation can afford. This sequencing is critical. When the

F–22 meets its initial operational capability in 2005, it will replace the F–15C—a 35 year old weapon system that will no longer be able to counter the full range of operational threats it was designed for. Furthermore, the F–22 will be cheaper to operate, require fewer personnel to operate, and require less airlift to deploy abroad. We made a substantial long-term investment commitment to achieve these revolutionary improvements and ensure we retain air superiority. Non-programmatic reductions will undermine the program stability necessary to control costs and maintain affordability. Already, during the course of the program, these reductions have increased program costs 2.5 to 3 times over the amount of the funds removed. Funding stability continues to be a major concern for the future of the F–22 program.

JSF is another critical Air Force long-term modernization effort. When the first operational JSF aircraft become available in 2008, they will begin replacing our fleet of F–16's, which entered service in 1979 and will be increasingly vulnerable in future threat environments. Operationally, the F–22 and JSF are designed to be complementary. In fact, JSF will rely on the F–22 to provide day one air superiority. Technologically, advances that make the F–22 revolutionary—in avionics, composites, engines, and signature reduction—are being heavily leveraged into the JSF, thereby reducing risk and cost and increasing weapon system commonality. The JSF program will result in a family of affordable fighter aircraft capable of meeting the future warfighting requirements of the Air Force, Navy, and the Marine Corps. The affordability and versatility of JSF may also provide the most attractive alternative to many of our allies and coalition partners as they seek to modernize their existing fleets of fighter aircraft in the next century. The JSF team has developed a basic framework for international participation. Already, we have entered into an agreement through which the United Kingdom will contribute $200 million to share in the development costs of the concept demonstration. JSF has the potential to become the world's standard multi-role fighter of the 21st century.

The Air Force plan to acquire the CV–22 for Air Force Special Operations Forces (AFSOF) complements conventional deep strike assets, such as the F–22 and JSF, by providing long range combat search-and-rescue (CSAR) as well as deep battle airlift. The CV–22's speed, extended range, and survivability will significantly increase the warfighting CINC's' ability to exfiltrate personnel from denied territory. These inherent advantages will reduce dependence on refueling while providing a greater range of options for Special Operations employment.

The next century will also bring advances in the numbers and varieties of threats. While the F–22, JSF, and CV–22 will provide the CINC's potent offensive tools to counter those threats, the Airborne Laser (ABL) will provide an equally potent defensive tool.

Operation Desert Storm demonstrated the potential of theater ballistic missiles to serve as an effective delivery means for weapons of mass destruction (WMD). Our current approach to counter this threat integrates complementary capabilities from the different Services to create a multi-tiered defense consisting of attack operations, boost-phase interceptors, and terminal defenses. We have programmed $700 million in an ABL over the current Future Years Defense Program (FYDP). ABL will provide a boost-phase intercept capability to destroy ballistic missiles over an aggressor's territory. The prospect of WMD debris falling on an enemy's own forces or people may serve as a strong deterrent to WMD use.

On-Going Priorities

Several modernization programs transcend our time-phased approach. Along with the Department of the Navy, we are procuring a new training aircraft—the Joint Primary Aircraft Training System (JPATS). The recently selected Beech MkII aircraft meets or exceeds every Air Force and Navy requirement at an affordable lifecycle cost. With its pressurized cabin, advanced navigation suite, and state-of-the-art propulsion system, the JPATS will better prepare our future pilots to fly advanced aircraft. Acquisition of JPATS will improve commonality with the Navy, support on-going efforts to consolidate Air Force and Navy flight training, and improve overall training safety.

Air Force modernization programs also reflect the need to provide the nation continuous, assured access to space. EELV will help us maintain that access. EELV is an evolutionary launch system that will be designed to deploy a broad range of spacecraft and support increasingly demanding launch requirements. It is expected to lower the cost of both military and commercial access to space and ensure the long-term competitiveness of America's commercial launch industry.

SBIRS is another key system that will improve the CINC's' ability to defend against theater ballistic missiles. As a replacement for DSP, SBIRS will enable U.S. and allied forces to detect targets, such as theater ballistic missiles, sooner and at lower altitudes, enabling allied forces to destroy them at longer ranges. As a result, the warfighter will possess an even greater ability to neutralize the theater ballistic missile threat.

SBIRS is part of the information age technology that will give theater level commanders increased opportunities to influence operations in real or near-real time. With SBIRS, space-based cueing will be available for direct downlink to a variety of offensive systems that can then destroy transport erector launchers immediately after launch detection. This space-based cueing will also be available for boost-phase intercept platforms, such as ABL, to intercept missiles early in flight and to ground and sea-based terminal defense systems.

While space systems, such as SBIRS, are designed to enhance our warfighting capability, they also represent technologies that are important to our commercial partners. Indeed, many key air, space, and information technologies are commercially based. Information technologies have become increasingly important to military and civilian users and permeate almost every level of C^4I and combat weapons systems. Many of these technologies, such as high-speed computers, distributive simulation, and miniaturization, have migrated back and forth between military and commercial users. Such information technologies can be a powerful force multiplier, offering offensive and defensive applications. As a result, the Air Force is placing increased emphasis on electronic combat and distributed information networks to enable decentralized execution of air operations.

High Leverage Player on the Joint Team

We continue to enhance operational relationships with the Army, Navy, and Marine Corps in many areas, but nowhere are these ties more evident than in Air Force platforms providing joint C^4I. Air Force systems, such as AWACS, Joint STARS, RC–135's, U–2's, UAV's, and theater battle management core systems, provide comprehensive situation awareness, early warning, and detailed real-time targeting information for all warfighters.

A large part of this C^4I infrastructure is space-based. The Air Force continues to launch and operate over 90 percent of DOD's space assets, including MILSTAR, the most recent addition to our space-based C^4I capability. MILSTAR provides a worldwide, anti-jam, scintillation resistant, low-probability-of-intercept-and-detection communications capability for all warfighting forces. Often described as a switchboard in space, MILSTAR can reconfigure immediately as warfighter connectivity needs change, providing dynamic communication networks.

Of historic significance, in 1995 we inaugurated a new era of military C^4I with the first MILSTAR satellite-to-satellite information crosslinks. These crosslinks provide the capability to transmit messages from a single fixed or mobile ground terminal to a satellite, rout them through the satellite constellation, and transmit them directly to a destination. Such crosslinks decrease our dependence upon an expensive and vulnerable network of overseas ground relay stations.

Our interaction with the other services is not one-way. We also depend on key capabilities they provide. By fiscal year 1999, the Air Force will depend largely on the Navy's EA–6B for stand-off jamming, replacing the EF–111. Savings from this decision will offset upgrade costs for the EA–6B. Similarly, the services share a responsibility to defend against theater ballistic missiles. Army and Navy systems provide terminal defense against theater ballistic missiles, while the Air Force concentrates on attack operations and boost-phase intercept options to ensure the CINC's possess an effective defense against theater ballistic missiles.

The Net Result

Our modernization plan, which supports our strategic vision of providing "Global Reach-Global Power" for the nation, will enable us to keep providing force options across the spectrum of conflict. We have made tough decisions, weighing technological advantages against affordability.

We have structured our programs for stability. Stability is vital to producing the best systems at the lowest possible cost. Most importantly, we have carefully sequenced our programs to balance year-to-year affordability concerns, readiness, and technical feasibility.

This is the right plan to ensure the nation's Air Force continues to meet National Military Strategy requirements.

LEAN, AGILE ACQUISITION

A key challenge to our vision is keeping pace with meteoric advances in essential warfighting technologies. Acquisition processes designed under Cold War rules can no longer respond quickly enough to benefit from radical shifts in design, much less from technological breakthroughs. To take advantage of increasingly dynamic opportunities, the Air Force is building a lean, agile acquisition system.

Adopting new processes is an important first step. Implementing these processes requires overcoming embedded barriers to change, such as statutory and regulatory constraints, cultural biases, and fear of the unknown. Most of these barriers are self-induced and, as such, can be overcome through dedicated, innovative leadership. Others, however, will be more difficult to master. Ultimately, the actions we take today will form the foundation for the lean, agile acquisition system of the future.

Acquisition Reform

Nine Lightning Bolt Acquisition Reform Initiatives have fueled an acquisition renaissance within the Air Force, building trust, empowering people, and strengthening teamwork. Individually, each initiative has helped tear down specific barriers to progress. Together, they have created a momentum ensuring the Air Force provides timely, affordable, and advanced systems to meet the needs of our warfighters.

One measure of the success of the Lightning Bolt Initiatives has been the number of obsolete or redundant acquisition policies we have eliminated. Another measure is the cost savings realized from streamlined processes. The true measure of success of these reforms is the efficient, timely delivery of systems that meet the warfighters' requirements at a cost the nation can afford. For instance, the F–22 has become a model acquisition program.

The F–22 Team is using Engineering and Manufacturing Development (EMD) proven, event-driven management techniques, such as performance based acceptance and reduced dependency upon military specifications and standards. Additionally, the F–22 Team has implemented a lean manufacturing philosophy that provides a balance between cost and risk. One element of the strategy is the level of concurrency between program development and production. The F–22 program has scheduled significant ground and flight test activities in advance of the initiation of low-rate production. When a Defense Science Board review in 1995 compared the F–22 to other fighter development programs, they reported the degree of concurrency in the F–22 program appears not only reasonable, but in many ways, more conservative than the other programs. Based on the current status of the program, the cost and schedule risk of an extended EMD program outweighs any concurrency risk. Tying it all together, the F–22 program successfully uses Integrated Product Teams (IPT's) merging stakeholders from all disciplines and ensuring that designs strike the proper balance between cost, performance, and supportability. This close government-to-contractor working relationship gives government personnel a superior degree of insight into the status of the program down to the lowest level.

We have also seen results in several other programs, including JDAM, GPS, PACER CRAG, and Peace Shield. The JDAM program supports the requirement to provide bomber and fighter aircraft an adverse weather, medium and high altitude attack capability against fixed or relocatable land and maritime targets. Thanks to a streamlined acquisition process, we have accelerated the JDAM program, increased JDAM's warranty from five years to twenty, and reduced the average unit price to $14,000. This places crucial, advanced systems in the hands of the warfighters one year earlier than requested with a total savings of $2.9 billion.

GPS is a space-based, all-weather system providing reliable and accurate worldwide positioning, navigation, and precision timing through 24 satellites and associated ground control stations to an unlimited number of military and civil users. During Operation Desert Storm, the U.S. Army needed a highly reliable and accurate method of navigating in the harsh desert environment. The joint GPS team orchestrated the rapid purchase of commercial off-the-shelf receivers and quickly delivered this equipment to the field in time for the ground offensive.

Another example is PACER CRAG. This program includes modifications and additions to the KC–135 aircraft's GPS, radar, and compass. This modification, among other things, makes it possible to reduce the KC–135 cockpit crew from three to two. In addition to manpower savings, this will significantly enhance KC–135 reliability and maintainability. Our PACER CRAG team has used all available tools within the acquisition community to reduce reporting requirements and to eliminate unnecessary military standards and specifications. We applied the resulting savings of approximately $90 million to other unfunded KC–135 modernization programs.

The Peace Shield program is another acquisition reform success story. This advanced command, control, and communication system for the Kingdom of Saudi Arabia provides an example of how we can downsize by identifying a program's core requirements, creating a fixed program baseline, and resisting the constant urge to update. In addition, every personnel position had a sunset clause tied to the completion of a milestone or a task. These reform efforts enabled a program that began behind schedule in October 1992 to deliver a completed system to the customer six months ahead of schedule. Peace Shield also reduced its System Program Office (SPO) size from 325 to 105, saving over $25 million in personnel costs.

Improving Business Practices

Beyond reforming our internal acquisition processes, the Air Force has pursued other solutions to more efficiently and effectively meet requirements.

We have moved increasingly into cooperative programs with industry, our sister Services, other government agencies, and our allies. Most of our programs—for example, C–17, EELV, SBIRS, MILSTAR, and most of our Precision Guided Munitions (PGM) programs—have joint users. Two major programs go beyond that and have been structured as joint acquisition programs: the JPATS and the JSF programs. By combining acquisition efforts we have been able to decrease costs and improve manpower savings. JPATS made this a reality. JSF offers similar opportunities. With JSF, we have agreed to divide expenses and expertise equally with the Department of the Navy and have concluded arrangements with the United Kingdom, allowing early financial and developmental participation in the JSF program. This approach will facilitate the development of an affordable multi-role aircraft.

We also have joint-service and international cooperative Science and Technology (S&T) efforts underway that will make significant contributions to joint warfighting. For example, we are currently conducting joint S&T programs with France and Germany in the field of ducted rockets, a technology crucial to extending the range of air-to-air missiles. Additionally, we are working with the Navy and with multinational partners on a new system to expand the escape envelope and increase the occupant size range for our ejection seats.

When we began to break down the barriers between the "defense" and "commercial" sectors of the economy, we discovered new opportunities to better use the nation's resources. Clearly, our nation can no longer sustain two separate industrial bases for military and civilian requirements. Therefore, we are moving toward cooperative arrangements to integrate military and commercial activities. Over the past twelve months, this approach has proven quite successful.

During 1995, the Air Force approved leases and awarded dual-use launch grants for commercial space ventures at Vandenberg Air Force Base, California and Cape Canaveral Air Force Station, Florida. In fact, over the next three years, Air Force launch pads will support more commercial than military satellite launches. Similarly, our EELV program is taking both the military and commercial sector to the next generation of spacelift capability. We have included commercial-sector members on the EELV acquisition team, removed unnecessary layers of management, and eliminated overly restrictive military specifications (MILSPECS) from the program. Private sector involvement is particularly crucial for this program because we expect the EELV to satisfy the needs of the military and bolster U.S. industry's competitive position in the world space-launch market.

Commercialization policies, outlined in the Office of Management and Budget Circular A–76, Performance of Commercial Activities, require DOD to rely on private sector sources for goods and services. Since 1979, outsourcing has produced operating savings of more than $500 million annually.

Outsourcing is not a new way of doing business for the Air Force—we have been on the cutting edge for decades. Our policy is clear: outsource where and when it is most cost effective.

One major challenge will be privatizing major portions of our depot maintenance capabilities, concentrating on those efforts which do not have wartime surge requirements. Our pathfinder privatization project is at Newark Air Force Base, Ohio. Newark was closed by the 1993 Base Realignment and Closure Commission. We selected a privatization-in-place option for Newark because moving workloads to other organic depots posed significant operational and economic challenges.

Currently, Air Force Materiel Command (AFMC) is aggressively evaluating Air Force-wide depot workload as the first step in privatizing depot maintenance work at Kelly Air Force Base, Texas, and McClellan Air Force Base, California. Already AFMC has begun to identify pilot programs to gain an increased understanding of the benefits and the drawbacks to privatization.

Expanding Access for Small Businesses

An unexpected benefit garnered from the acquisition renaissance has been an increase in business opportunities for smaller commercial ventures. Since small businesses frequently lack the resources or expertise to tap into these opportunities, we challenged ourselves to improve access, increase awareness, and ease availability for America's small businesses. We predicated our efforts on a simple belief—all businesses should have equal access to Air Force procurement opportunities. As a result, the Air Force leads DOD and much of the entire federal government in support to small businesses. Our Small Business efforts center around the Air Force Marketing Information Package (AFMIP). AFMIP provides the Air Force Long Range Acquisition Estimate (LRAE) for fiscal year 1996 and beyond in the form of practical "how to" guidance on selling to the Air Force. AFMIP also includes the full text of the Air Force Mentor-Protege Handbook and information on international and domestic commercial diversification. In addition to AFMIP, the Air Force has continued its support for the Interagency Committee On Women's Business Enterprise (IACWBE), expanding access for women-owned businesses in Federal procurement opportunities.

MOTIVATED, DISCIPLINED PEOPLE

The Air Force operates on the leading edge of technology and the tools of our trade are lethal. Such a force requires motivated, disciplined airmen led by superior leaders. To ensure the nation's Air Force continues to be the world's premier air and space force, we recruit and train quality people, nurture leaders, and embrace unambiguous, high standards.

Recruiting and Retention

The publicity surrounding the defense drawdown, skyrocketing college enrollments, a youth population at its lowest level since the advent of the all-volunteer force: these are the hurdles for recruiting new members. Yet, to maintain a balanced force with the right distribution of rank, age, and skills, we must constantly replenish our ranks. Therefore, we are closely monitoring the pool of potential recruits, tracking workforce trends, and rewarding our recruits with top notch training, meaningful work, and a lifetime of educational opportunities.

Aggressive recruiting expands the pool of potential talent and it ensures a workforce that represents the total population. Continuing to attract qualified minorities to the Air Force will sustain the future growth of an increasingly diverse population. It also molds a workforce representative of society. Diversity brings credibility and relevance to the Air Force. It also helps us weave our values into every fabric of society—through the varied backgrounds of the sons and daughters who serve.

While attracting diverse populations to a workforce is essential, retaining them matters just as much. We are convinced that putting people first is the best way we can guarantee the readiness of our force. As a result, we are committed to providing and maintaining an acceptable quality of life for our people and their families.

Thinking Globally-Training Locally

As an essential ingredient of America's combat readiness, our airmen think globally but train locally. That means Air Force training is designed to represent, as accurately as possible, the environment, conditions, and experiences our men and women would most likely face while participating in operations around the world. Such training requires use of a wide variety of land, sea, and air resources to create realistic and representative circumstances.

To ensure access to such areas, we have developed cooperative use arrangements with those who may have competing interests for the same land and airspace. Such arrangements are predicated on responsible custodial care of these resources. Currently, Air Force ranges incorporate over nine million acres. Sixty percent of this training space is dual-use, shared by the military and the public. These ranges include managed forests, farming and grazing areas, and protected wetlands. Additionally, we are minimizing the use of hazardous materials, broadening recycling programs, and incorporating environmental improvements into our aircraft designs.

We will continue to search for improved ways to execute our responsibilities and steward our nation's resources.

Excellence in Command

Leadership is the foundation of our organization. We depend on our ability to train, educate, and select our leaders and then provide an atmosphere where they can use their talents toward mission accomplishment. As the demands of Air Force leadership grow, and the issues facing our leaders become increasingly complex, it has become necessary to improve the way we ensure our readiness to face these challenges. For instance, we are improving commander selection and training processes. We have designed a centralized system to provide all candidates for command equal consideration and central screening of their records. This should ensure a fair and open system with the best possible criteria for selection.

We have also instituted leadership courses to ensure our commanders are as well prepared as possible for their new responsibilities and know what we expect of them. Squadron, Group, and Wing Commander Courses are a first step. In addition, our Squadron Officer School, Air Command and Staff College, and Senior NCO Academy have included extra leadership and accountability case studies in their curricula.

Concurrently, across the Air Force we have vigorously reinforced the importance of professionalism, accountability, and responsibility. Air Force leaders must focus on the mission, demand professional standards of conduct, and hold people accountable if they fail to meet these standards. We have provided specific guidelines for commanders that link disciplinary and personnel actions while protecting the commander's prerogative. Furthermore, we have emphasized the need for more stringent documentation of all adverse actions, and we require evidence of those adverse actions at all accountability points, such as promotions, evaluations, assignments, and decorations.

Unambiguous, High Standards

Technical competency, drive, diplomacy, and team-building skills are important qualities for any leader. We will continue to require those skills from our commanders. Just as crucial, however, are the personal qualities of integrity * * * service before self * * * excellence in all we do. We've stressed the importance of these core values in our discussions with Air Force people at all levels. Our core values are the standard for our behavior, our service to country, and our treatment of one another. All who wear the uniform, especially our leaders, have a duty to live according to the values of this institution. Personal values, professionalism, demanding standards, and accountability—all flow from our vision of the future Air Force.

PEOPLE FIRST

To ensure we recruit and retain the right people, we will continue to reward the challenges of this profession with an equitable quality of life. Readiness and quality of life are inseparable. That is why we put "People First."

This year we conducted the first ever hands-on, computerized Quality of Life Survey of everyone in the Air Force. This survey identified strengths and weaknesses among Service efforts to assure our people an acceptable quality of life. On a positive note, many of our people intend to make the Air Force a career. On the other hand, many had concerns, such as the high OPTEMPO of their units.

To assure a balanced approach, the Air Force continues to support its Quality of Life Strategy, focusing on seven priorities: compensation and benefits, safe and affordable housing, health care, balanced Personnel Tempo (PERSTEMPO) and OPTEMPO, community and family programs, retirement benefits, and educational opportunities.

Compensation and Benefits

One of the fundamental requirements for maintaining an all-volunteer force is ensuring fair and adequate military compensation. To help maintain a quality force, the Air Force supports full statutory pay raises through the FYDP as proposed in the President's budget. In addition, for civilians, the Air Force supports pay equity with industry through the locality pay provisions of the Federal Employees Pay Comparability Act.

Housing

Like most Americans, members of the Air Force want to live and raise their families in comfortable homes in secure neighborhoods. Unlike most Americans, however, airmen must live where their orders take them in support of worldwide deployments and contingencies. It is vital for all airmen, particularly junior members, to have access to safe, affordable housing. Air Force people do not expect to live in luxury. Simply, they want to be able to place their families in housing that will give them peace of mind when they are deployed.

Unfortunately, there are insufficient quantities of quality housing to meet existing and projected demand—currently, 39,000 families are on waiting lists to move into base housing. The average age of Air Force housing is 33 years, with over 60,000 homes requiring improvement or replacement. At current funding levels, it will take 24 years to catch up with this backlog.

Our goal is to get well within the next 10 years. The solution is innovation, not just increased investment. With the support of Congress, the Air Force could realize both the flexibility and the authority to satisfy much of its housing needs through the private sector, thereby reducing costly infrastructure and overhead.

Dormitory improvements for single and unaccompanied personnel are another key part of our housing problem. The Air Force strongly supports OSD's one-plus-one standard for single and unaccompanied dorms, an initiative aimed at enhancing individual performance while assuring personal privacy.

Health Care

Airmen rank quality health care for their families as their number one non-cash benefit. To alleviate stresses on the military health care system and mitigate the financial burden on military members, the Air Force supports the current TRICARE program. This program requires neither user fees in Military Treatment Facilities nor enrollment fees for active duty families. TRICARE is the only program in today's economic environment that can assure military members and their families the broadest range of uninterrupted medical coverage—and we are committed to making TRICARE work.

We are also concerned about quality dental care. While the family member dental plan allows overseas family members to remain enrolled, there are no provisions under the plan for overseas treatment. As a result, the Air Force supports the Overseas Family Member Dental Program (OFMDP), which is in place in Europe and soon will be implemented in the Pacific.

Balanced PERSTEMPO and OPTEMPO

The OPTEMPO for many of our units remains high—and it will only increase as we are called upon to support additional contingency operations. Four times as many Air Force people are deployed today as in 1989 enforcing no-fly zones, maintaining air refueling bridges, supporting humanitarian operations on three continents, and helping stem the flow of illegal drugs. We are committed to supporting these operations. Concurrently, we are working to reduce high PERSTEMPO to below the maximum desired level of 120 deployed days per person per year.

The Air Force is employing three main initiatives to achieve this goal. First, we are using global sourcing to balance the workload across all active duty Air Force units, regardless of the theater to which they are assigned. Second, we are reducing taskings on the systems where our people have the highest PERSTEMPO. That is, we prioritize tasks to determine which missions we can support, offer substitutions, or request relief. Third, we are using Air National Guard and Air Force Reserve volunteers to reduce active duty taskings and are integrating them into additional mission areas, such as AWACS, space operations, and information warfare. Air Combat Command has developed a successful scheduling process that has Air National Guard and Air Force Reserve participation in contingency operations planned through 1998. As we rely more on Air National Guard and Air Force Reserve people, we must be prepared to extend to them appropriate services and benefits—to include those Guardsmen and Reservists serving on active duty for less than thirty-one days. This requires improved guidance, full funding, and advanced scheduling to maximize volunteer availability and to ensure we can offer benefits and protections regardless of the duration of active service.

In a Spring 1995 survey, Air Force commanders and first sergeants said that family readiness is directly tied to mission readiness. The Family Readiness Program provides special emphasis on family separations through a variety of services, including deployment preparation, support during separations, and reunion guidance. With the high number of deployments, these services have become an essential capability at many bases. They must be continued to ensure we support our airmen and their families.

Community Support and Family Programs

Community support and family programs also help the Air Force recruit and retain the right people. Our highest priority efforts in this area are to preserve commissary benefits, expand child care, and expand Services' activities.

Commissary savings are vital to the entire military community and are ranked second, behind health care, as the most valued non-cash benefit. Military members depend on commissary savings to extend already stretched military income.

The Air Force Child Development Program provides care for 45,000 children daily in child development centers, family day care homes, and youth center programs. The Air Force will continue to expand Air Force child care facilities to achieve the DOD goal of 80 percent of the requirement.

Services' activities directly support unit readiness through programs that enhance individual fitness, unit cohesion, and a sense of community. The Air Force will continue to expand and improve Services opportunities.

Retirement

The Air Force remains committed to the nation's military retirees. A solid retirement benefits package compensates for the extraordinary demands we place on our people over the course of a career.

We believe it is important to preserve the military retirement system. Reforms to the military retirement system during the 1980's have reduced the lifetime value of retired pay for newer service members by as much as 26 percent. Further reductions in the net value of retiree benefits could have a dramatic, negative impact on recruiting, retention, and readiness.

Educational Opportunities

We also are committed to preserving and expanding educational opportunities. Tuition assistance has proven a valuable recruiting and retention tool, providing our airmen the means to obtain associate, undergraduate, and graduate degrees. The Air Force supports maintaining current Air Force tuition assistance levels. At the same time, the Montgomery GI Bill continues to be a success story. These self-improvement opportunities serve not only as incentives to our people but also lift them to greater levels of productivity. Ninety-five percent of those who enter the Air Force enroll in the Montgomery GI Bill program. However, many of those wishing to enroll in the current program are no longer eligible. For these, the Air Force is studying options to improve their access to advanced education.

TOWARD THE HORIZON

The capabilities spelled out in our vision paper, "Global Reach-Global Power," are battle tested. They have enabled us to identify and build the unique contributions of air and space power to joint warfare and the nation's defense. These objectives continue to serve as our intellectual compass.

We are poised to accept the challenges ahead. We have strengthened our commitment to Science and Technology (S&T), the foundation for Air Force modernization, and we are celebrating the publication of "New World Vistas," which identifies those technologies that will shape the Air Force of the 21st century. In addition, we have built a team to help us ensure we achieve the clearest sense of our planning horizon and institutionalize across-the-board long-range planning for the Air Force of 2025. With the benefit of experience, insight, and imagination, we will continue to provide the nation the premier air and space force for the future.

Today, we are ready to fight and win our nation's wars. We have in hand those modernization and training efforts necessary to sustain that capability in the decades ahead. In the future as in the past, the nation's Air Force will provide "Global Reach-Global Power" to help shape the world our children will live in.

Senator STEVENS. Thank you very much, Madam Secretary.

Senator Inouye.

PREPARED STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Mr. Chairman, I thank you very much. Madam Secretary, General Fogleman, welcome to the committee.

May I ask that my statement be made part of the record?

Senator STEVENS. Yes; thank you very much, Senator.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Madam Secretary, General Fogelman, let me join our chairman in welcoming you here today. Of all of our military departments, I believe the Air Force might be in the best shape.

Your department was the first to start reshaping its force at the end of the cold war and now you are on track to meet the coming century.

Your modernization programs are continuing apace with both the C–17 program and the F–22 proceeding well. Even in these austere times, the Air Force appears to be flying high.

Still there may be some danger signals on the horizon in recruiting, retention and readiness funding. Hopefully, your testimony will enlighten us on the status of these important issues.

PREPARED STATEMENT OF SENATOR MACK

Senator STEVENS. Senator Mack cannot be here today. He asked that I insert his statement in the record, and ask Secretary

Widnall for the Air Force's cooperation with GAO's review of electronic combat assets.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CONNIE MACK

Secretary Widnall. General Fogleman. The fiscal year 1996 Appropriations bill directed DOD to provide Congress "an EC Consolidation Master Plan to establish an optimum infrastructure for electronic combat assets." I wanted to briefly discuss the report DOD recently sent to the Congress.

I am not sure to whom these comments are best addressed, but since you are here today, and the Air Force was the only Service to recommend a consolidation, I will share with you my frustration with this document.

This report has been provided without any basis by which the Congress can review the recommendations it contains. I have not been able to find any criteria, guidelines, mission requirements or cost justifications which might support the recommendations contained in this report.

As you probably are aware, I have a vested interest in this matter. Florida is the home of Eglin AFB which has consistently received superior ratings for its EC capability outscoring competing Air Force ranges. The most recent such rating was two years ago by the Service Chiefs.

However, while I may have an interest in this matter, my goal is to get an honest appraisal of the benefits of the proposal consolidation plan. Accordingly, I have asked the General Accounting Office to review this report and to provide the Congress with an understanding of the assumptions behind the recommendations.

Today's budget climate forces all of us to make the smartest fiscal decisions. The Administration's budget, $14 billion less than the baseline projections, falls far short of that required to sustain readiness. I believe the Service Chiefs and many of my colleagues on this Subcommittee share this observation. In support of this, I would note that the Services have volunteered lists of priorities if more funding should become available.

Given this reality, it is imperative we get the greatest benefit for each defense dollar spent. Therefore, I am sure that you understand my interest in seeing that the Congress is fully apprised of the facts and assumptions underlying these recommendations.

As you may know, the General Accounting Office has already begun their analysis. However, I must tell you that I am concerned with the feedback which I have received from their initial meetings. I have been told a DOD employee stated Congress never directed DOD to consider cost. While I hope this comment was said facetiously, I am troubled this statement was made at all—especially in light of the fact that no cost analysis accompanied the report which came back to the Congress.

I imagine my colleagues are as anxious as I am to have GAO complete this task. It is my expectation that the Air Force will give the GAO their full cooperation and provide immediate access to all personnel and information requested. Can you assure the Committee that the Air Force will cooperate in this manner?

STATEMENT OF GEN. RONALD R. FOGLEMAN

Senator STEVENS. General Fogleman.

General FOGLEMAN. Thank you, Mr. Chairman, distinguished members of the committee, and committee staff. It is a privilege to be here today to represent the men and women of the U.S. Air Force. I would really like to thank the committee for all the support that you have given to the Air Force and all the services in the past, and particularly in 1996, where we had very strong support for the C–17 and our lease/buy program to replace the aging VIP fleet that we have, the plus-ups that we got in our F–22, the F–15, F–16, the space-based infrared systems, the rivet joint reengining, and in the real property maintenance accounts. And we particularly appreciate the effort that this committee went to, to ensure that we had tax relief for our troops in Bosnia as that deployment has unfolded.

I think Americans take great pride in their Air Force, and they do it because we have some of the finest young men and women in the Nation serving with us. These young men and women make us the envy of the world. Over 99 percent of our people have high school educations. Over 84 percent score in the top one-half of the Armed Forces qualification test. Today, we have nearly twice as many women in our force as we had in 1975. That is, today, we have 65,000 versus 33,000—it constitutes 16 percent of our force—and nearly double the minority representation that we had in 1975. Minorities now represent 22 percent of our force.

And that is a good news story. Not only are we recruiting and training quality people, but we are also retaining them. First-term reenlistments are at an all-time high in the Air Force at 63 percent. Reserve retention is at 89 percent. Our Guard retention is at 87 percent. And I would tell you that we watch these numbers very closely because we have turned to our Guard and Reserve more and more to help us with our OPTEMPO problems.

We appreciate the committee's support for the recruiting and retention efforts. I would tell you that the U.S. Air Force is no longer a cold war air force. We are down from 608,000 people to 396,000, and we are headed toward 381,000, and lower. It is a lean, agile force that offers responsive global reach and global power; 81,000 of our 396,000 people are permanently stationed outside the continental United States—in Europe, the Pacific, or Southern Command. Their presence signals the U.S. commitment to allies and friends as only forces on the ground, engaged in daily operations, can do.

Now, in addition to those 81,000, we have 12,500 airmen that are deployed around the world on temporary duty from our Conus bases. And they are in places like Liberia, Panama, Saudi Arabia, Kuwait, Italy, Ecuador, and Turkey. They are gaining familiarity with overseas operating locations while engaging in major exercises and contingency operations.

Now, of that number, 9,800, this morning on my operations summary, are actually engaged in ongoing contingencies. Air power is speed, it is range, it is precision, it is flexibility—their dominant perspective often makes us the force of choice in a crisis. We saw that most recently in Liberia. The Air Force has taken part in over 250 contingency operations since 1981, and the majority of those have occurred since the end of the cold war.

I am proud of the fact that of that 9,800 people that are out there today working contingencies, over 1,800 of them are guardsmen, over 900 are reservists. In fact, today, Senator, we have one of your HC–130's deployed to Misawa Air Base, and I could go down a whole list of Guard and Reserve deployments.

Let me give you a few examples of the quality of the people that we have out there and the diversity that they are working. Now, back in the middle of the deployment into Bosnia, we heard an awful lot about the work it took us to get established at Tuzla. And one of the key players in that effort was an Air Force organization called Red Horse. It is a civil engineering outfit that is designed to go there and build bases. And our Red Horse outfit from Hurlburt Field is led by Col. Susan Waylett. She directed the efforts of 250 airmen who constructed 425 hard back tents, erected 394 temporary tents, and built an entire infrastructure to support over 5,700 U.S. Army troops in just 7 weeks, well ahead of schedule.

Last year, we recognized with the Air Force Cross, Tech Sgt. Timothy Wilkinson, who repeatedly risked his life to care for, extract, and defend Army Rangers wounded in Somalia in October 1993. He was exposed to enemy fire and wounded himself, but he remained with the wounded troops overnight. The troops would have died but for his efforts.

In another part of our force, we have an Air Force judge advocate officer, Col. Brenda Hollis, who is currently engaged on the United Nations International War Crimes Tribunal. And assisting her is one of our OSI special agents, John Gerns, and they are active in field investigations, looking at the alleged atrocities in Bosnia.

So this is the quality and the diversity of our people. But the Air Force also has good equipment, the equipment that you have funded. It remains the envy of the world. The stealth and the precision of our F–117 aircraft allowed it to strike over 40 percent of the deep targets hit during Desert Storm while flying only 2 percent of the combat missions. The C–17's global mobility capability has already been proven in combat. And I can tell you that the day it delivered 15 Bradleys direct to Tuzla to bolster Army presence early on in that operation, it really demonstrated its true flexibility, because they went and they landed on a fighter-sized airfield, rapidly unloaded, uploaded, and took off, minimum time on the ground for max throughput.

A couple of weeks ago, I delivered the first C–17 to Altus Air Force Base for the training facility out there. As I was flying that aircraft out, my instructor pilot happened to be one of these young captains who had been involved in the Tuzla airlift operation. And he spoke with pride of his ability to go in and land on that fighter-sized air base, back that aircraft up, download two Bradley fighting vehicles, and spend no more than 7 minutes on the ground the entire time, demonstrating the tremendous flexibility of this aircraft.

Our JSTARS aircraft that are not even operational yet, have just completed 97 missions over Europe. CINCEUR, General Joulwan, recently stated, and I quote, "JSTARS' radar picture was invaluable during the deployment phase of Joint Endeavor and in verifying treaty compliance status from D plus 45 to D plus 90."

More and more we have been bringing the B–2 out of the barn. We have been displaying aircraft around the world. We have been showing the capability of that aircraft to be anywhere in a matter of hours. In March, in conjunction with a training mission, we flew the B–2 to an air show in Chile and back to the United States nonstop.

Our precision munitions were extraordinarily effective in the gulf war, and more recently we saw how they compelled the Bosnian Serbs to cease hostilities and sue for peace. And I will tell you that from my blue-suiter perspective, our priorities this year in this budget are on people and on modernization. Secretary Widnall has already addressed our time-phased modernization program. I would only add that I think this is a balanced program that is going to provide the necessary capabilities for the Air Force to support the Nation and our theater CINC's in the 21st century.

I would like to highlight the fact that investment in the F–22, our stealth, our engines, our avionics, our software, the airframe itself, will also benefit our joint strike fighter. Working with the defense industry to streamline acquisition, we need your help in achieving program stability.

I said that people are the strength of our Air Force, and good quality of life is essential for combat effectiveness, so in this budget you see a pay raise. You also see VHA rate protection. You see a one-plus-one dorm standard—15 new dormitory projects in this particular budget. We plan to construct, renovate, or replace 1,712 family housing units. And we are excited about the new legislation that allows us to get more private funds into the family housing equation. There are private firms out there who want to do business with us. We just need to have the authority to go leverage that.

We also appreciate having the contingency funding supported up front. Better funding stability comes from this, and that is what we need throughout the year.

As we look at what we have accomplished in 1995, we see that we have introduced a couple of innovative initiatives. We introduced a new employment concept called the air expeditionary force [AEF]. We have always had the ability to do this, but we have focused it now in a different way to provide a responsive capability to meet theater CINC requirements. So when CINCCENT called on us back in the fall to deploy an air expeditionary force to cover a gap in carrier coverage in the Persian Gulf, we were able to deploy 18 F–16's into the Middle East to augment the 4,500 people that we already had there and that we have had there since 1991. This air expeditionary force provided a surge capability. It arrived on the 25th of October; 12 hours later, they were in operation.

CINCCENT has subsequently come back to us this spring and asked for another AEF deployment to cover another carrier gap. This time, 30 F–15 and F–16 fighters and 4 tankers have deployed to Jordan. They stood up that operation last week, and within 6 hours they were flying missions over Iraq.

Now, this signals U.S. support for an ally in the region. It allows our people to engage in training with host nation military. It is improving our ability to operate. And it is building a foundation for future coalition through round-the-clock interaction.

The year 1995 witnessed significant Air Force operations in Bosnia. Some of you may remember there were a lot of naysayers out there last year about this time about the ability of air power to have much of an impact in a place like Bosnia, where you had foliage, you had mountains, you had coverage. It was not like the desert, people were saying. But last summer, we conducted a very successful air operation in that country. Deliberate force was the name of that effort. But because we had some clearly defined political goals, because of the advances in technology, and mainly because of the tremendous training, courage, and discipline of our Navy, Marine, and Air Force and allied air crews, we were able to bring the Serbs to the peace table.

That whole operation was led by Gen. Mike Ryan, as he was the air component commander, operating out of NATO's Combined Air Operation Center in Italy.

In 1995, we flew nearly 25,000 sorties from bases in Turkey and in Southwest Asia to maintain what has now become essentially a 5-year-old air occupation of certain parts of Iraq. It has allowed us to impose U.N. sanctions on a rogue dictator without putting U.S. troops at risk on the ground.

In January of this year, the U.S. Air Force helped close out the longest humanitarian airlift and airdrop operation in history. Air Force air crews flew nearly 6,900 sorties and delivered over 84,000 short tons in 3½ years to keep Sarajevo alive.

In the Western Hemisphere, our counterdrug operations have continued. They have not only included airborne assets, but radar assets on the ground in the Andes being maintained and manned by guardsmen as well as active duty forces.

As I mentioned earlier, just last week, when the call went out for a swift evacuation of civilians from Liberia, our air lifters and Air Force special operations forces, flying MH–53 helicopters, MC–130's, and AC–130's, took off within hours to reach halfway around the world to a remote region of West Africa, to rescue over 2,000 civilians, of which 425 were American citizens under hostile conditions.

So it has been a busy year, but it has been a rewarding one. I would also tell you that we do not just look to the past. The Air Force is deeply engaged in an effort, looking at the future. Back in 1990, we put together a long-range strategic vision. It was called global reach-global power. That vision has served the Air Force well. It has driven our reorganization plans. It has given focus to our modernization priorities. It provided the vision for the things that our people had to do during the early part of the 1990's.

But it is now time to take another look at that vision paper. So the Secretary and I initiated a long-range planning effort about 1 year ago. We brought in a two star, gave him a specific function of looking at this over an 18-month period. He is charged with reporting to the senior leadership in October of this year on what we think the world will look like and what the Air Force should look like in a different fiscal environment, a different political-military environment out there in the 21st century.

This long-range planning effort is taking advantage of things like our New World Vista study, the Spacecast 2020, a Rand study on future force structure. And then we have got the Air War College and the Air Command and Staff College, where we have Army, Navy and Marine, and Air Force students working together on a study called Air Force 2025.

As we look to the future, I am primarily concerned about long-term readiness. We have taken many cuts since we started downsizing. But this is the year that I believe we have got to stop. This is the year that we have got to start seeing our modernization plan executed so that it will take us into the future.

In short, the U.S. Air Force is a full-service Air Force. We do everything in the air and space business. We do it from cradle to grave. We do it very well because of the support you have given us and the quality of the people that we have on our team. I think the Air Force is a great source of pride to the country. We will continue to provide combat capability that the Nation needs for operations across the entire spectrum, as we strive to remain what has come to be known as the most respected air and space force in the world.

So I thank you, Mr. Chairman.

MILITARY PAY RAISE

Senator STEVENS. We thank each of you for your statements and I did not hear anything I disagree with. I do wonder, though, Secretary Widnall, whether the pay raise is sufficient to really close the gap between the comparable civilian salaries and military salaries, particularly Air Force salaries. Have you got a study on that at all?

Secretary WIDNALL. My understanding is that there is a pay comparability study underway. And we are very happy with the support we have received from the Secretary and the President for the pay raise that is in this year's budget. Pay is certainly an important item to our people. But it is only one item among many items that are important to their whole quality of life picture for our people.

Senator STEVENS. Is this the quadrennial study going on?

Secretary WIDNALL. I believe there is a quadrennial study going on. I do not know when it will be released. I think sometime soon.

Senator STEVENS. Well, our staff tells me, General Fogleman, that those Air Force people living off base, the service people living off base, have about a 20-percent gap in terms of their housing cost and their allowances. Do your studies indicate that is the case?

General FOGLEMAN. Yes, sir; they do. And that was the issue that I raised in my statement relative to the VHA, in trying to drive that down to what we think is a reasonable number, which is 15 percent. And there is money in this budget that will not get us to 15 percent, but which should get us just below the 20 percent level. And that is a slight improvement, but not as much as we would like, nor as fast.

C–17 MULTIYEAR CONTRACT

Senator STEVENS. This committee, and particularly the Senator from Hawaii and I, have tried very hard to support your multiyear contract in concept. Do you have any studies to indicate what other multiyear potentials there are out there for us to look at, in terms of ongoing acquisitions now?

Secretary WIDNALL. Well, let me speak in very general terms. I see the C–17 multiyear as part of a pattern of acquisition reform, of looking at programs in a very innovative way. We were absolutely delighted after the conclusion of the November DAB, when the fundamental decision was made to procure the additional 80 aircraft, that the next step was taken to look at creative ways to get the aircraft for minimum cost and apply some acquisition reform and ideas. We have seen major successes in the JDAM program and in our other programs. And so I think it has become a way of life.

I am not aware of any specific legislative proposals that we are going to bring you on multiyear issues, but certainly that kind of innovation, I think, has become a way of life in the acquisition of these big programs.

QUALITY OF LIFE PROBLEMS

Senator STEVENS. What other quality of life problems do we have in terms—somehow we have a balance to achieve between recognizing the balance of the quality of life problems and continuing with the modernization program and the research for future modernization. What other quality of life problems do we have that might be addressed for 1997?

Secretary WIDNALL. Well, let me speak, again, in very general terms. The budget before you does represent the Air Force priorities. Obviously, we have made some difficult choices in balancing this. It does represent a balance between quality of life, readiness, and modernization.

Senator STEVENS. But are there any new initiatives we should look for, as far as the quality of life concept, for 1997?

Secretary WIDNALL. Well, I think there are several. I know that there is great interest in the military family housing area, in additional opportunities for privatization. As General Fogleman mentioned, we have not only some legislation that came out of 1996 that we are still going to run some pilot programs on, but, in addition, there are new concepts of privatization that we are ready to go forward on with additional test cases at some of our bases.

So we are excited about the privatization possibilities in the quality of life area. You mentioned specifically the question of off-base housing. And clearly, we would like to offer attractive on-base housing to those members of the Air Force who would like to have it. So we see that as a very important need.

There are so many areas. Obviously medical care is a very important area not only for our active force, but for our retirees. I think we put a priority on Medicare subvention so that we could continue to allow our retirees to use Air Force facilities. We have a big emphasis in the Air Force on both—not only in the medical area, but in the wellness area. I think that is a principal thrust to keep people well. Fitness programs, nutrition, smoking cessation programs, just a whole range of wellness programs. You go on to any base and you will see a well stocked fitness center that provides wellness programs.

Child care is a very important issue for us. You may be aware that we have developed a mechanism to, almost in real time, survey our force, to identify what areas are most important to them in quality of life. And so we pay a lot of attention to the outcome of that.

Do you want to add an additional comment?

General FOGLEMAN. I think, Senator, that the Secretary has touched on most of the points. I would tell you that when we do survey, the people tell us that retirement, compensation, commissary/BX, medical, child care, and MWR are the things that are mainly on their minds. I think anything we can do to assure people that the retirement system has some stability, that people are not going to be changing that again, is an important dimension.

In the medical area, clearly, TRICARE, as it is being introduced and as people are exposed to it, it is gaining very good acceptance.

TRICARE

Senator STEVENS. This budget cuts $600 million from DOD's medical costs. How can we be improving and cutting at the same time?

General FOGLEMAN. This budget cut, in part, reflects the introduction of TRICARE and the projected savings from increased utilization management, that is, the effective management of how patients use health care services. The biggest problem we have in the medical area, from the perspective of the chiefs, is this area of subvention—the idea that at age 65, military people are forced out of the military medical system and into Medicare. If we could get some relief in that area, that would be a tremendous help to us.

ADDITIONAL MULTIYEAR CONTRACT SAVINGS

Senator STEVENS. I am going to hold off on my questions concerning the missile program. Others here might have more direct involvement in that. But when Senator Inouye and I were in the conference with the House, I was surprised to get the analysis presented to us that if we went to a 6-year option on the C–17, and increased the cost in the first 2 years, we could add another $800 plus million to the savings from the multiyear program. Did you explore that option with them?

General FOGLEMAN. Yes, sir.

Senator STEVENS. Did you disagree with it?

General FOGLEMAN. Sir, the numbers that I have seen most recently indicate that a 6-year multiyear, where you plussed up in 1997 and 1998, would give you an additional savings of about—I want to say about $330 million, not $800 million.

Senator STEVENS. I think I inverted that. The cost would be $838 million. The savings would be an additional $330 million.

General FOGLEMAN. Yes, sir, that is true. We went back to McDonnell-Douglas to renegotiate on the multiyear. They came back with a 7-year proposal and a 6-year proposal. And the 6-year proposal quoted the numbers that you have just quoted, sir.

Senator STEVENS. But you felt that the time line, as far as the funds that would be available to you over the period of the 7 years, would not justify the additional ramp-up for the first 2 years in order to make those additional savings, is that right?

General FOGLEMAN. Yes, sir; we were concerned about the risk of being able to identify and source over $400 million in 1998, even if the Congress were to give us the money in 1997 for the first year of a 6-year multiyear; whereas, within the 7-year multiyear, all the funds required are currently within the top line.

Senator STEVENS. Senator Inouye.

F–18E/F CAPABILITIES

Senator INOUYE. First, I would like to react to the General's statement about quality of personnel. About 2 weeks ago, Chairman Stevens and I were briefed by two young captains of the advanced electro-optical system on Mount Haleakala. Ordinarily, the chairman and I would be briefed by secretaries or four star generals. This was done by two captains. And I must say that we were extremely impressed by how they presented themselves and presented their case and responded to our questions. I wish to publicly acknowledge that and congratulate the Air Force for maintaining and retaining such quality personnel.

I would like to ask a few questions on the centerpiece of the Air Force, the F–22. I am certain, as an aerospace expert, Madam Secretary, you have reviewed the capabilities of the F–18E/F. Can you tell the committee what your view is of its ability to meet future threats?

Secretary WIDNALL. Well, I guess, as an aeronautical engineer, I view——

Senator BUMPERS. Madam Secretary, just a moment.

Would you repeat that question, please? I think you just stole one of my questions; I want to be sure. [Laughter.]

Secretary WIDNALL. OK.

Senator INOUYE. Do you want to ask that one?

Senator BUMPERS. No; I want you to ask it again. I just did not hear it.

Senator INOUYE. It is on the capabilities of the F–18E/F. And I wanted the Secretary to tell the committee what she thought of its ability to meet future threats.

Secretary WIDNALL. Well, without getting into great detail on the Navy program, I guess I would say that I view it as a derivative of, say, F–16—F–16-like technology. It is an aluminum airframe. It is in that sort of generation. I guess what I am saying is that it does not incorporate stealth technology, which is sort of the next leap in the development of technology for fighter forces.

So, within its envelope, which is that of a—what I would view as a conventional fighter—that is how I view it, as a conventional fighter, today's technology.

F–22 CAPABILITIES

Senator INOUYE. So you are suggesting that the F–22 is not the F–18?

Secretary WIDNALL. Oh, by quite a stretch. The F–22 is tomorrow's technology. It incorporates stealth, which will make it an order of magnitude more survivable on the battlefield. As General Fogleman mentioned in his opening statement, we have the experience with the F–117 of what it could do, what stealth could do. We liked it. We want to go into battle with that kind of capability.

And you probably want to add some things to that.

Senator INOUYE. Some have suggested that there is no threat on the horizon and, therefore, the procurement should be delayed accordingly. Do you have any response to that?

Secretary WIDNALL. Well, let us both speak to that issue, because I guess, from my point of view, what I see happening is that the proliferation of technology is going on throughout the world. And the fact of the matter is there were things that we could not even do in Bosnia because of the capabilities of ground-based surface-to-air systems. And we also see standoff missiles proliferating and we see new fighter aircraft coming on. The technology road maps are all out there. Those capabilities will be widely available throughout the world.

The F–22 represents a significant comparative advantage for the United States, a step function in the technological capabilities. And that comes at a price tag that is about 30 percent more than the cost of today's F–15. So I think that additional cost for that technological gain is definitely worth it for today's military and for the taxpayer.

You probably want to speak to that.

General FOGLEMAN. Could I join in, if you please, Senator?

I would like to answer that question, I think, from two perspectives. First, as a lifelong airman who spent most of his career in the fighter business, and also as a military historian, which happens to be my academic discipline, I spent a lot of time looking at these kinds of issues. And I would tell you that when you go back and look at history, and you look at people who try to make do over a period of time, without really looking at what is happening around the world, young men and women end up paying a terrible price in terms of blood, sweat, and tears.

I will give you a couple of examples that most of us are familiar with. Few remember in the opening days of the Second World War—I know very well because I had an uncle who was at Clark Field on the 8th of December, 1941, when the Japanese, who had clearly better aircraft than we had, swept our fighters from the sky and destroyed the bulk of the aircraft that we had on the ground. My uncle never came home from that war. And I lived with that growing up, because I was raised by my grandparents. So I was cognizant of some personal as well as military history as I got into it.

As I got older, and as a cadet, I was taught the story of the VT–8 at the battle of Midway, how this courageous torpedo squadron attacked the Japanese fleet. Not one torpedo hit any of the ships. Every aircraft was shot down. Every man in the squadron was killed save one, Ensign Gay. And the idea was, yes, everybody knew that it was an obsolete torpedo attack bomber that they had, but they had this scheme where they were going to have fighter cover come in and protect it. But in the friction of war, that just does not always happen.

So we covered up that screw-up by talking about the gallantry of the people who died. But the fact of the matter is, there was better equipment available. It was not bought, and it was not there for the people when they needed it.

Now, when I look to the future and I look out there, one of the advantages of ending the cold war is that we have been able to go in and exploit and get our hands on some of these late generation surface-to-air missile systems, the SA–10's, the SA–12's, Patriot-like systems that are out there. We are getting the ability to see the kind of air-to-air missiles other nations have. The United States of America today, your U.S. Air Force, Marine, and Navy pilots, are flying with the fourth-best IR-guided missile in the world today, fourth best. I also see radar-guided missiles that are comparable to our AMRAAM.

So we have been developing, and we have developed, a model program called the F–22. It has not been rushed. In fact, it has been stretched. It is not a cold war program. We will not achieve initial operational capability with this airplane until the year 2005.

I flew the F–15 the first time in 1976. Now, I know that the F–15 has been upgraded through the years, but the fact of the matter is we call that airplane the flying tennis court. The reason is the radar signature of the airplane. And radar signatures are the things that are going to determine the range at which you are detected by an air-to-air radar or a surface-to-air radar, and they are going to determine the range at which you can be killed in an airplane in the future.

So, when you go to something like the F–22, where you actually use the combination of stealth, supercruise, and integrated avionics, you get such a tremendous advantage over the other person that you are not only able to provide air superiority over your air space, but you can dominate the other guy's air space. You can go work lots of other problems in addition to just talking about air to air. You can be working things like his theater ballistic missile launching sites. There are all kinds of things that come into this.

So the F–22 is a revolutionary system. And I think if you go back and look, the Navy's choice for an airplane to go on to the carrier deck was not the F–18E/F, it was a thing called the A–12. And when the A–12 program was canceled, then the Navy needed airplanes to put on their carrier decks. And the F/A–18E/F was the only thing that they had available. So they have gone and bought that. And I cannot quarrel with their decision to do that. That is all they had available. They had carrier decks that needed to be filled.

But I think it would be a mistake for this country to go to the lowest common denominator when we have a model program. All that program needs is funding stability and support, and it will deliver a world-class system at the time in which we need it. And the time phasing between that system and the joint strike fighter is very carefully laid out to take advantage of airframe life and to take advantage of combat capability.

So, if I sound like I get a little emotional about this, it is because it is so core, not to the Air Force, but to the Nation. No ground surface operation is going to be conducted without air superiority. And the F–22 is the key to air superiority in the first part of the 21st century, sir.

F–22 SCHEDULE

Senator INOUYE. General, are you satisfied with the progress being made on the F–22?

General FOGLEMAN. Yes, sir, I am.

Senator INOUYE. Is it on schedule?

General FOGLEMAN. There have been rumors that the airplane is too concurrent. That is absolutely not true. There have been rumors that we had a weight problem. Not true. We have gone and looked, for instance, at the weight growth in fighters and where we are at in the development of this particular fighter, with the kinds of tools that we have.

We have had, in this aircraft, less than 6 percent growth in the weight over where we projected we would be at the given milestone. Every airplane that we have introduced, F–14, F/A–18, F–15, F–16, has had greater weight growth in this part of the program than this airplane. We think that is due to the kind of program management and the kind of tools that we have available.

So, we will fly this airplane next year. The first flight will occur in late May 1997. The airplane will come into the inventory in enough numbers that we will be able to declare initial operational capability in the year 2005.

EA–6B VERSUS EF–111

Senator INOUYE. General, we have been advised that the Air Force is planning to retire the EF–111 fleet and rely on the Navy's EA–6B. Are you satisfied that the Navy's EA–6B will meet your requirements?

General FOGLEMAN. Well, sir, I think a combination of things. The bottom line is yes, but I have a couple of qualifiers on that.

First of all, we have looked at and adapted our tactics, our operating procedures, to take into consideration the differences between the EF–111 and the EA–6B. So we think that we can operate in a compatible manner. We have had to make some adjustments to do that.

The other thing is that the Department of Defense has committed a fairly large sum of money to upgrade the EA–6B. And so if that money is executed and that program is executed, the EA–6B should have the capability required. Additionally, what we have done on our part in the Air Force is we have structured the EF–111 drawdown in such a way that if something happens in the EA–6B program, if it gets off track, we have an insurance policy where we can extend the EF–111.

Senator INOUYE. Thank you very much.

Mr. Chairman, I have a few other questions, but I will wait until my turn comes around.

Senator STEVENS. Yes; I have some questions, too, but I hope Senator Bumpers will not mind.

You mentioned that we go to war with the fourth-rated missile.

General FOGLEMAN. Yes, sir.

ASRAAM MISSILE SYSTEM UPGRADE

Senator STEVENS. This committee has been trying to push the Department to work jointly with Great Britain to upgrade our missile system. What is the status of that now?

General FOGLEMAN. Sir, you are talking about the ASRAAM missile. It is a full part of the AIM–9X competition, which is the follow-on short-range air-to-air missile.

Senator STEVENS. What is your timetable? How soon are you going to be able to tell us that that is not the case, that our people go to war with the best missile in the world? How long will that be?

General FOGLEMAN. Sir, it will be after the turn of the century on the current timetable.

Senator STEVENS. Senator Bumpers.

Senator BUMPERS. General, first of all, I agree with everything you have said about the need to maintain the superiority of our planes and our weaponry in general. I have read every book that has ever been written on Midway and seen every movie that was made on Midway. As you said those first squadrons went out and did not hit anything, and lost every plane. It was a cruel thing.

General FOGLEMAN. Yes, sir.

F–22 PROCUREMENT DELAY

Senator BUMPERS. It was one of the worst chapters in the history of the American military.

But, as you know, those of us who sit on this side of the aisle have an additional responsibility, and that is to get the very best with the least amount of money. And that is not meant to skimp or to send our men and women into combat with less than what we would desire. But we cannot bankrupt ourselves.

That is why I have offered a bill in the Senate to delay procurement of the F–22 for 5 years and save $6 billion. And that proposal was based on information which I received long ago. But on March 25, Defense News says the Navy claims its F–18E should remain unchallenged by foreign aircraft through 2015, according to a new study prepared by U.S. naval intelligence officials. Not until Russia's proposed fifth generation fighter is deployed, sometime around 2015, will the Super Hornet's advantage be eclipsed. Until then, the improved version of the FA–18 will remain ahead of the French-built Rafale, China's F–10, and Russia's SU–35 and Mig-29 fighters.

Now, that is based on, I assume, very studied intelligence. My point is, I am not trying to torpedo the F–22. As a matter of fact, I think it is a good plane. But I have also believed that, in this particular case, the F–22 is going to be a very expensive plane, and I am just saying we could save $6 billion and lose nothing if the Navy is correct on this.

General FOGLEMAN. Well, sir, I have not seen their analysis. I have seen the analysis that we have done relative to the current threat and the projected threat. And I have also asked the staff to go look at what is the cost of a slip in the F–22 program. The $6 billion that you do not spend during that 5-year period that you may slip the program, in fact, translates to a total program cost increase. I am told a 3-year slip will increase total program cost of about $8 to $10 billion more as you go down the road.

And the net effect of that then becomes, one, you have slipped a program at a critical point, a program that has been a model acquisition program. And as a result of driving the cost up by $8 to $10 billion, it becomes a self-fulfilling prophesy that the airplane becomes too expensive to buy. And so you deny the U.S. forces a capability that it will need during the first part of the 21st century.

I can tell you that from actual experience and in the computer analysis that we have done, when you are in the air-to-air business, you do not want parity, you want to be clearly superior. And it is not just the other fighter that you are going against, but it is the surface-to-air missile system combined—what we call the integrated air defense system—that makes the big difference. So that is why I am leery of an analysis that does a fighter-on-fighter thing, in the absence of an integrated air defense system.

I think if you just go back—again, I will go back to history—think how little sophistication we thought we were going into when we went into Vietnam. In Vietnam, the United States Air Force lost over 1,300 fighter aircraft; the United States Navy lost over 550 fighter aircraft in this conflict, over the entire period of the war, against a relatively nonsophisticated environment, where the best aircraft they had was a Mig-21.

But the fact of the matter is, when U.S. airmen were called upon to penetrate air space protected by an integrated air defense system, and we were flying—and I can tell you that, because I was shot down once during that war—we were flying equipment that we had bought for a different purpose. And we adopted it for that war, as we went in there to first try to penetrate. We did not have any concept about electronic combat jamming. We were pretty unsophisticated.

I flew many a sortie without ever having a radar warning system in my airplane. So, sir, I do not quarrel with what that analysis may or may not have said. I do not know the basis of it. But I know that the Air Force has looked at, for instance, what if we did slip the F–22 and we put the money into upgrading the F–15, to try and keep it alive and make it viable for 5 more years or so. And we came to the conclusion that such a program that will cost nine-tenths of what the F–22 costs and gives you one-third the capability. So it just does not seem to make sense to us to do that.

JOINT STRIKE FIGHTER

Senator BUMPERS. Well, let me just shift gears from the F–22 to the joint strike fighter.

General FOGLEMAN. Yes, sir.

Senator BUMPERS. I have seen figures from $250 billion to $1 trillion for the total contract over the life of that plane, which would include foreign sales as well as spare parts. What is that plane supposed to cost when we initially start producing it?

General FOGLEMAN. Yes, sir; there are actually three price ranges, because we are looking at three target airplanes. And we have some pretty good news on that, I think.

The Air Force version of the airplane, which is going to be a multipurpose airplane primarily focused on surface attack with some basic air-to-air capability, the target price on that airplane is $28 million a copy. The target price for the Navy version, which is a first-day, deep-strike airplane, is right now bounded in the range of $31 to $38 million, with the Navy saying they would go to the low end of that. The Marine version, which will have the VSTOL, and, therefore, could cost a little bit more money, is somewhere in the $30 to $35 million range.

Now, we are in some competition-sensitive numbers right now because of where we are at with the RFP.

Senator BUMPERS. We have three companies working on this?

General FOGLEMAN. Three teams, yes, sir.

Senator BUMPERS. Three teams.

General FOGLEMAN. And I would tell you that the preliminary paperwork that we are seeing is very encouraging. That is, the numbers are coming in lower than what I just told you. And one of the reasons we think that that is occurring is some of the synergism that comes from these same companies having worked on other stealth projects, the F–22 avionics, the F–22 engine propulsion systems, et cetera. But the fact of the matter is we are pretty confident that we should be able to get these prices.

The key driver, though, I would tell you, Senator Bumpers, is the U.S. Air Force plans to buy about 2,000 of these airplanes, the Marines plan to buy about 600 in rough terms, and the Navy about 300. So it is those large production runs that help drive the cost down for everybody. If the Air Force dropped out of that, the cost for the Marines would go off the chart, as would the Navy cost, and vice-versa. But, clearly, us being together in a joint program makes a big difference.

Senator BUMPERS. General, have you seen this Navy document here?

General FOGLEMAN. No, sir; I have not.

Senator BUMPERS. Can you not see it from there?

General FOGLEMAN. No, sir; I have not seen it.

F/A–18 COMBAT EFFECTIVENESS

Senator BUMPERS. Essentially, it shows overall combat effectiveness of various fighters. In all fairness, this is a Navy publication. It goes from 1995, and it compares the F/A–18, the Russian SU–27, the Mig-29, the Mirage-2000—a French plane. It shows the F/A–18E superior to every other plane until the year 2015. Now, this is what the Navy says.

General FOGLEMAN. Yes, sir.

Senator BUMPERS. And that is what the article I read in Defense News to you a moment says. I am really troubled about it. We are trying to balance a budget around here, and I am trying to save money, and I would like to save money even at the Pentagon. I am like you, I do not want to thwart or contradict the philosophy of superiority you described a moment ago. But I finally came around to supporting the C–17 because I do think it has the capability that they originally said it would. It did not look like it was going to have it for a long time, and I thought we could save billions of dollars by buying more C–5's, and I thought the C–5—I know the capability on landing space and turnaround space and all that sort of thing.

So I have come around to that. But I am not at all convinced at this point that we need the F–22 very soon—and I can assure you I will lose—I have lost more battles on these kinds of things than anybody in the U.S. Senate.

Senator DOMENICI. You keep trying anyway.

Senator BUMPERS. Yes; one of these days we are going to get a new Senate and I will start winning these things. [Laughter.]

Well, in this particular case, as I say, when I look at this document—it is put out by the Navy—I have a difficult time understanding why we could not save a few billion dollars by slipping the F–22 production.

General FOGLEMAN. Sir, I would ask for two things, if I could, on that. I would like to be able to provide you an Air Force product that I can stand behind, just as I am sure the Navy will stand behind their product. And the other thing is to be able to sit down and go over the numbers with you, in terms of what a 5-year slip means in terms of total program cost.

Senator BUMPERS. Well, that is a factor, obviously. But, as I say, your own acquisition chief—and you have seen some of the things he has been saying—comes down pretty much on the same side.

General FOGLEMAN. Yes, sir.

Senator BUMPERS. One observation, Mr. Chairman, if I may, and that is, one night I was seated at a dinner party by Prime Minister Rabin—he was not then; he was out of office—but he told me about the 1967 war, the 1973 war, and there was another war in there somewhere. But the first time I ever went to Israel, they had opted for the F–15, which is a tremendous air-to-air fighter aircraft. When we gave them a choice of whatever they wanted, they flew them all and they opted for the F–15, and they never regretted it.

And the first war they had with the Syrians flying the most advanced planes Russia made at that time, which was probably the Mig-25, I think that they shot down something like 85 to 90, and they lost 3 planes. In the 1973 Lebanese war, they shot down about 83 and did not lose a single plane.

Now, if you would have been Brezhnev back then, you would have been calling your Air Force people in and saying, "What the hell is going on here?" And I could not help but think, our position at that time, having that fighter plane, which was—and Israeli pilots are very good—and I took a great deal of pride in that, incidentally, at the time when he told me that, but I could not help but think if you were on the other side how would you feel about it.

General FOGLEMAN. Yes, sir.

Senator BUMPERS. And the Russians were always—I promise you, I promise you that whatever we do, this fifth generation fighter they are producing will not be in the same league with whatever we have in the year 2015. I mean, first of all, the people sitting around this table will make sure it does not happen.

Senator STEVENS. And, Senator, we will not be here at that time. And your time has expired, I am sorry to tell you. [Laughter.]

Senator BUMPERS. He told me the other day, he said, remember when we first came here, we used to look around at all the old bulls; now we are the old bulls. [Laughter.]

Senator STEVENS. Some are. Some are, but I am not.

Senator Domenici.

Senator DOMENICI. I have been here longer than you, but I am not an old bull.

Anyhow, the reason Brezhnev did not do anything about it is they never told him the truth. He did not know about that—if you are wondering about Brezhnev.

Senator BUMPERS. I always wondered. Thank you, Senator.

CHEMICAL/BIOLOGICAL WEAPONS OF MASS DESTRUCTION

Senator DOMENICI. In addition, he did not know enough to do anything about it.

But, in any event, let me just make an observation, General and Madam Secretary. And I would hope that I could make this to the Chairman of the Joint Chiefs at some point, in a meeting or privately. Frankly, I think doing a risk assessment on the threats in the world is the real issue on the new fighter; it is that which justifies us having to have it. I am on your side, but sometimes I have a little difficulty knowing whether you should always apply the latest change in technology. When you look around the world and see what is happening, sometimes technology moves so quickly, and it makes our new programs obsolete. But I do believe the fighters we have are too old in technology, and many of them in their airframe life cycle. So I am for proceeding.

But I think the biggest risk to America is none of the things we have been talking about. I think it is from rogue nuclear missiles and from biological and chemical instruments of mass destruction. And I frankly believe that we will not go another decade without some major, major disaster that is going to be predicated upon chemical or biological weapons of mass destruction.

I believe this issue of who is in charge is spread all over the map; some of us are worried about that; some of us think it ought to be put in one place, with the greatest scientists available and the greatest military people available running it. And it ought to have a high enough priority to be equivalent to what we did on the nuclear deterrent, because the same issue is at stake.

And you all know, without being in charge of it, that right now you cannot do much about rogue missiles, and you cannot do much about missiles that carry warheads that incur chemical and biological mass destruction. But you do not even need such missiles; there are things that people would be building right now that could just wipe out Chicago by contaminating the water system.

And, frankly, when you sit privately in joint chief meetings, talking about the risks—you have a little bit of responsibility here—I would hope you would urge that we think differently about how we address that risk.

General FOGLEMAN. Yes, sir.

Senator DOMENICI. In fact, I am right now in favor of a major Manhattan-type project that is directed just at defense against these weapons of mass destruction. Put the best scientists and laboratories together and say, "How do we address this issue?" And I tell you, if we do not, all this talk about having the F–22 and all the other systems will not amount to anything when one of these happens. They are going to be saying, "Where were you?" That is what they are going to say to you all: "Where was the military?" So that is just an aside.

I have some people working on how we might do that. But you know we do not even have it consolidated, right?

General FOGLEMAN. Yes, sir.

PHILLIPS LABORATORY

Senator DOMENICI. It is here and it is there.

Now, let me move from that to just a couple of parochial issues. At some point, General, I would like very much—I will not do it here—to have a discussion with you and your chief science advisor about Phillips Laboratory in Albuquerque. They just dedicated one of the most incredible facilities dedicated to space. They dedicated a huge laboratory, where all of the equipment that is going to be used in space will be tested first. It is a great testing laboratory, aimed at eliminating as much risk as possible.

We all, as Americans, worry about risk, whether it is product risk or people risk. I think you have a fantastic institution there in the Phillips Laboratory that will do the best work in the world. But I am concerned about the intentions of the Air Force vis-a-vis that laboratory, and I am concerned about how these intentions compare to the original declaration of the laboratories status, which was established 4½ years ago.

General FOGLEMAN. Yes, sir.

KIRTLAND AIR FORCE BASE INFRASTRUCTURE DEFICIENCIES

Senator DOMENICI. Let me just ask, on a parochial side, either of you, about Kirtland Air Force Base, which I think we all got a better glimpse of, in terms of its diverse use, during the base realignment and closure process. Would it be fair to say that you will get back on path in terms of the infrastructure deficiencies at Kirtland Air Force Base? Can somebody tell me that?

General FOGLEMAN. I was at Kirtland on Sunday, sir—Saturday night and Sunday. I had a brief meeting. It was not an official, full-blown trip. I had an opportunity to meet with Wing Commander Col. Ann Harrell. I think you are seeing already that, for instance, this year we have money in the budget to demolish some of that old family housing out there that is substandard, and we are building new family housing units there. I think you are going to see us continue to do that kind of thing.

RETIRING EF–111'S

Senator DOMENICI. I just wanted to state momentarily here for the record what the Air Force and the Defense Department has there is a 70-square-mile facility right next to a major city. It has so much diverse use that it turns out to be a very big asset. And, clearly, the infrastructure is not adequate.

General, I want to go to the F–111 with you for a minute. We have been in communication, and the chairman was in communication with you, regarding the decision that you have made regarding that aircraft. For the record, can you tell me, are you convinced that we do not need to continue to maintain that airplane?

General FOGLEMAN. Sir, I am convinced that the program that has been developed, if it is funded and executed, will meet our requirements for electronic warfare capabilities. And part and parcel of that program is to not retire the EF–111's prematurely. In other words, as you remember, the problem that we were facing with the Department of Defense is that we had two electronic warfare weapon systems, both of which needed upgrades that were going to cost in excess of $1 billion apiece.

So the decision to combine them into one airframe, and the thing that drove it to the EA–6B, was the requirement for the Navy and the Marines to have a carrier-based capability. So the decision was made to go to that airframe, to concentrate the improvement moneys in that airframe, to take additional money and bring more EA–6B's online.

If that program is executed, I am convinced that with the changes in tactics, where we are moving with our force structure in terms of stealth, that we will be able to do the job with the EA–6B. But I condition that, again, by saying that I think it is absolutely crucial that we keep that insurance policy there with the EF–111's, because it will be out into the 1998 timeframe until we see these improvements and all of this come on board.

Senator DOMENICI. I am going to submit to you a couple of specific issues regarding Kirtland Air Force Base. If, in fact, we add to the overall defense number that the President sent up, which I believe we will, I do not know how much, but somewhere between $10 billion and $15 billion, I assume—we think there are a couple of Milcon projects there that are desperately needed. We would like your view on them, not in derogation of the President's budget, but just whether they fit the bill. If we had money, would you do them—that kind of question.

I have a few more questions, and I will just leave you this. I will leave you a history of the F–111 discussion between you as chief and those of us who were writing the bill last year.

General FOGLEMAN. Yes, sir.

Senator DOMENICI. I have a concern, because I am wondering whether we wrote all that report language last year for naught. I have a history that would reveal that maybe the decision had already been made before we wrote the report language. I would like you to explain that. I do not think it is necessarily your fault, but I do think the decision was made about the EF–111 before we wrote that language in. I will send you a question to try to explain that for us in the record.

General FOGLEMAN. Yes, sir.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator STEVENS. Madam Secretary, General, we have two votes. I am going to try to come back in between, but I am not sure whether we can or not. If there is a 10-minute vote, we will not be back until after the beginning of the next vote.

But let me just state for you that, in my judgment, General, those of us who survived despite the mistakes of the past ought to be damn sure that we do not make mistakes that affect people, where the effects will be felt after our watch is over. So I am with you 100 percent. We are going to find some way to make certain that, if at all possible, we accelerate the IOC of the F–22 in these next 6 years. I do not know how we will do it, but we will find ways.

I do believe that it is absolutely necessary that we stay ahead. It does not make any sense for a superpower to be sending off, as you say, sending our people off to war with a third-rate missile or a fourth-rate missile. We will work on that.

General FOGLEMAN. Yes, sir.

Senator STEVENS. If you will just wait for us, we will be back in just a few minutes.

[A brief recess was taken.]

Senator STEVENS. Thank you for your patience.

Senator Cochran is next, but I will call on you since you are here, Senator Johnston.

B–52 STATUS

Senator JOHNSTON. Thank you very much, Mr. Chairman.

First of all, let me get to the really important part of my questioning, which is about a game between the U.S. Air Force Academy's Fighting Falcons and the Bulldogs of Louisiana Tech at Independence Stadium in Shreveport, LA, which is my hometown. We are trying to get that game put together, General and Madam Secretary. And if you could tell the people at the Air Force Academy how important this is. We have got a huge Air Force contingent at

Barksdale Air Force Base, and it would be a great thing. And my former administrative assistant is now the athletic director at Louisiana Tech. So if you could do that, I would greatly appreciate it.

Now, I am concerned about B–52's. As we know, the B–1 and B–2 cannot really deal with the variety of ordnance that the B–52 can. And we have a very air-capable group of B–52's, most of them, as I understand it, have well less than one-half the number of hours that most of the airlines that are flying today have. And yet we are cutting back, and I think dangerously cutting back, on the deployments of the B–52's.

What can you tell me, Madam Secretary or General, either one, about B–52's? And do you agree? And what do we have to do to reverse what I think is a bad trend with respect to B–52's?

General FOGLEMAN. Well, if I could, Senator, I will go ahead and start with that response. The Air Force's plan for the B–52 is really driven by the outcome of the "Nuclear Posture Review." And as a result of that "Nuclear Posture Review," it was determined that if we were to keep 56 primary authorized B–52's, which would have included both operational squadrons and a training squadron at Barksdale, as well as a squadron at Minot, we would have had 56 primary authorized airplanes and a total of 66 airplanes left in the inventory.

We got to looking at that number last year. And given the amount of time it takes to do depot maintenance on a B–52, it became clear to us that while the objective was to have 56 airplanes on the ramp at all times, we could not do it with 66. So we came up with a plan that said 56 primary airplanes, 71 total aircraft. So, under that plan, we were going to go ahead and retire the rest of the B–52's, which primarily came out of Minot, as you know.

There has been debate about the advisability of retiring those airplanes, based on what may happen in Russia with the election, what might happen relative to START II, and other unknowns. It will be the Air Force's position that due to the cost involved to keep those airplanes active—we have already programmed the manpower out, the flying hours—we do not have that in—these airplanes were programmed to go out of the force structure in the second and third quarters of this fiscal year.

In other words, by basically July 1 of this year, those aircraft would be off the books and we were going to fly them to AMARC, our Aircraft Maintenance and Reclamation Center, the bone yard, where we could have put them into inviolate storage. They would not have been cut up. They would not have been salvaged. They would have been there if we would have had to recover them. That is really what we think we should do.

Now, subsequent to that, we have gotten some guidance out of the authorization committee to go look at retaining those airplanes, not at the storage facility, but on the ramps at Barksdale and at Minot, as additional attrition reserve airplanes, and putting a few maintenance manpower slots against them so that we could—we would not be flying them operationally, but we would keep them in a warm status, so that if the START II goes south on us, that we can come back and reconstitute flying units.

The bottom line is we believe that the 56/71 combination meets the full requirement of the "Nuclear Posture Review." And that is the most stringent requirement we have in the B–52 arena.

Senator JOHNSTON. Well, those that are put on I guess what you would call warm standby, that is one squadron at Barksdale and one at Minot, is that correct?

General FOGLEMAN. Yes, sir.

Senator JOHNSTON. And they are manned by, what is it, about 1.1 crews per squadron?

General FOGLEMAN. That is an active squadron. When we put them into warm status we are planning on having no crews against those airplanes at all, and a minimum number of maintenance people against those airplanes.

Senator JOHNSTON. Only maintenance, no flying?

General FOGLEMAN. No flying crews and limited maintenance, no, sir.

Senator JOHNSTON. Now, how long do you expect those two squadrons to stay on warm standby?

General FOGLEMAN. And at inactive inventory status. Again, our position is we would like to take them out of that status in fiscal year 1997 as soon as we could get resolution on START II—any direction. When we get that resolution from both a conventional and a nuclear perspective, it makes sense to take them out of the inventory at that time.

Senator JOHNSTON. And when that would happen, you envision the 66 planes at Barksdale?

General FOGLEMAN. No, sir; there would be one squadron maintained at Minot, the way it is today, plus your force structure at Barksdale would stay there.

Senator JOHNSTON. All right, but the same force structure would stay there?

General FOGLEMAN. The same as it is.

Senator JOHNSTON. And how long do you envision the B–52 staying in the inventory?

General FOGLEMAN. Sir, right now we have them programmed out through the FYDP. So we have not programmed the retirement of the remaining B–52's at all out through the program.

Senator JOHNSTON. And at what numbers?

General FOGLEMAN. At the numbers that I have given you, the 56/71 number, sir.

Senator JOHNSTON. Is it a correct assessment, then, that the "Nuclear Posture Review" is driving the number of B–52's? And, if so, why do you not take into account the variety of weapon systems that the B–52 can carry?

General FOGLEMAN. Sir, we have done that, in fact. And, as you know, not all the B–52's are capable of carrying that full variety of weapons systems. In fact, there is a rather limited number of the B–52's that have been modified. We are in the process of upgrading all of the 71 airplanes so that they will be fully conventional capable. But, at the same time, we have a major conventional mission upgrade program going on the B–1 to make it compatible with our current and future conventional weapons. And that program is also on track.

COST OF UPGRADING B–1 VERSUS THE B–52

Senator JOHNSTON. What is the relative cost of upgrading the B–1 versus the B–52?

General FOGLEMAN. Sir, I do not have it per airplane right off the top. I can get that and give it to you if you would like, but I know the total cost of the B–1 upgrade program. I do not know the total cost for the B–52.

Senator JOHNSTON. What is the total cost, sir?

General FOGLEMAN. The total cost of the B–1 upgrade, to include the ECM, is $2.4 billion over 13 years.

Senator JOHNSTON. All right, thank you very much.

General FOGLEMAN. Yes, sir.

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you.

MINUTEMAN III BOOSTERS

General Fogleman, I understand that the Air Force has come up with a plan for a national missile defense system that utilizes Minuteman III boosters and is compliant with the ABM Treaty. I wonder if you could tell us a little bit about how much you project the cost of this plan to be and how soon it could be deployed to give us some protection against missile attack?

General FOGLEMAN. Yes, sir; the so-called Air Force option is—right now, our projection in the U.S. Air Force is that this would cost somewhere between $2.2 and $2.5 billion if the decision were made. And the bulk of the risk associated with that would have to do with the kill vehicle that would be put on top of the Minuteman booster—the integration of that—whether it is upgraded from a LEAP vehicle or a down-scaled kinetic-exoatmospheric kill vehicle [EKV]. And there are some ways you can go in that direction.

The reason that it ends up being so relatively inexpensive is because all of the infrastructure is in place and is warm right now at Grand Forks Air Force Base. We would envision putting this system at Grand Forks in missile silos that we are in the process of decommissioning right now, as we pull Minuteman out.

I would tell you that we feel pretty confident on that price. However, because we do not want to get a lot of expectations and inflame a lot of passions with what appears to be a cheap approach to this, we have asked for some independent cost analysis from other people outside the Air Force. We think that OSD is doing the right thing in that they have now directed that there be kind of an across-the-board cost analysis done of the proposals that are out there by the Army, the Air Force, and others. But we feel pretty confident that our numbers will hold up.

Now, this proposal we think could be done within the three-plus-three framework very easily. And, in fact, we think that if a decision were made, that you could probably do this within—at the end of a 3-year period, you would be in a position to go ahead and deploy. But this would be a very limited capability. And fundamentally, what we are looking at is we are going on the assumption that ultimately, if we go to a full-blown national missile defense in this country, you would probably want it to be space based. But, in the near term, that is too hard to do, both technically and politically.

So, if you are looking for a limited capability, what you would want is something that would be land based, that would give you coverage of the 50 States, and would be clearly an interim system. And so you would want to spend as little money as possible, but yet have an effective limited system.

So that is kind of the foundation or the basis of our study and our look at this.

Senator COCHRAN. Is this an Air Force initiative or did the Ballistic Missile Defense Office [BMDO] ask the Air Force to come up with a plan?

General FOGLEMAN. Back 1 year or so ago, BMDO had asked us to go look at various proposals. We had done that, and it looked promising, then the Air Force has continued to examine the feasibility of it.

SPACE AND MISSILE TRACKING SYSTEM

Senator COCHRAN. There is a very important part of the missile defense program that involves the space and missile tracking system. It may be the single most important part. And I understand that there are contractors working on various aspects of this program, and that the Air Force and BMDO have both been working on this. In the fiscal year 1995 legislation, the management of this program was actually given to the Air Force.

There was a suggestion that there should be an agreement by BMDO as to the schedule and emphasis and funding proposals that would be submitted in connection with this. There was some legislation that was considered and subsequently dropped when it became apparent that the Air Force and BMDO would work out an agreement like that.

Tell me what the status of that is, and are you satisfied with the agreement that has been developed for the management of that program? You or the Secretary.

Secretary WIDNALL. Let me start out by sort of backing up to how that program was developed. It was not just an Air Force/BMDO program, but it was really a joint program, involving about 24 different actors, so to speak, that formed the program, which has both the high component and the low component. BMDO was clearly a part of that. The Air Force is a part of it. All the services were involved and are always involved.

It was one of the first examples of bringing people together in the space arena to form a common product. It was kind of a good success story for that.

I think we are very happy with the program as it has emerged, both the high component and the low component. We are prepared to execute it. We have looked at opportunities for accelerating the program. And I think we understand the parameters that would be required, in terms of money and scheduling if we were to accelerate it.

Senator COCHRAN. Well, we added, as you know, $135 million to the budget request last year, and accelerated some target dates, specifying when deployment would occur, trying to get that program moving faster than apparently had been contemplated by the administration.

I notice that the Department has requested a rescission of $51 million of that $135 million increase. What happens if we do not approve it? Can you still spend the money? Are there things you can buy with those dollars that will help meet those target dates?

Secretary WIDNALL. Yes; if we had that additional $51 million, we would be able to move the flight demonstration program two quarters forward, to engage in some additional technological-risk mitigation, and some pre-EMD activities. So we would be able to usefully spend the money.

Senator COCHRAN. In connection with the——

Senator STEVENS. Senator.

Senator COCHRAN. Yes.

Senator STEVENS. That reprogramming is for taking defense money and putting it into nondefense. It is a violation of our basic rules here, and we will not approve that rescinding. We will not approve it.

THEATER MISSILE DEFENSE LASER TECHNOLOGY

Senator COCHRAN. Well, that settles that.

The Air Force has also come up with another idea in connection with theater missile defense, I understand, that involves the use of laser technology—a battlefield capability that would involve a 727 and—I wonder if you could bring us up to date on the status of that and whether or not you foresee difficulties in getting clearance to proceed with specific requests for funding or what the status of that is.

Secretary WIDNALL. Well, let me say that we are very excited about that program, that we see some genuine technological opportunities that have come about because of some true scientific breakthroughs. We have, I think, been aggressive at putting Air Force TOA against that opportunity. It is a 747. We have stepped up to fund the larger of the two 747's, so that the people who are trying to integrate a high-powered laser onto an airframe will have a little more to work with.

We have had very good demonstrations of our ground-based laser capability. The key to the whole thing is adaptive optics. We think it has some very attractive operational implications; namely, intercepting missiles over the bad guy's territory instead of our own territory. We think that that is extremely attractive.

You may want to speak to some of the operational issues.

General FOGLEMAN. First of all, as the Secretary has said, I think any time you start to talk about lasers, people kind of shy away from you a little bit, because for years and years it has been one of those technologies we have been promising people we could do something with, and they have really been slow coming. And everybody understands that the difficulty with a directed energy weapon in the atmosphere is the dispersion that is caused by any kind of disturbance, whether it happens to be induced by heat, dust, or just turbulence.

The key breakthrough that has occurred in this area, and the reason that we have become excited, is back in 1981, we put a group of people together to work on this problem, and for 10 years they worked this thing until they finally have cracked the code with this discipline called adaptive optics. And fundamentally, what they do is they take a flexible mirror and the shape of the mirror that they bounce this laser off of is determined as a result of shooting a laser out through the atmosphere; that laser beam comes back and reveals the location of the disturbances; it is how it will affect the beam.

So, instead of shooting a sharp laser beam into space, this mirror disperses the laser beam, and as it travels through the atmosphere, the atmosphere concentrates it. So what we now have is the capability to employ a laser at hundreds of kilometers, with enough force and concentration to destroy a Scud-type vehicle. The reason that it is attractive in the theater missile business is that it is a system.

You have got to start first with battle management command and control. The Air Force is the executive agent for that for DOD. Then the next thing you have to have is attack operations. You have got to go attack their main operating bases, their dispersed locations. That is a more difficult task, but it has a big impact on how many missiles get shot, et cetera. Then the third dimension is the boost phase. If you can hit it in the boost phase, that is when the vehicle is under pressure, it is brightest, and you can kill it. And that is also, as the Secretary says, when it can drop on the other guy if it is carrying a weapon of mass destruction.

All this has come together.

Senator COCHRAN. What is the likelihood of vulnerability of a system like that in a battlefield situation—you do not normally think of a 747 as being anything but a big, fat target up there.

General FOGLEMAN. We envision it being no lesser or no greater than an AWACS or Joint STARS. In other words, the employment concept is such and the range is such that we think that we could safely employ it.

Senator COCHRAN. Could you tell us what the range is, or is that classified?

General FOGLEMAN. The specific range is classified, but I would tell you it is hundreds of kilometers. And I would be willing to come over and sit down with you, sir, and run through the classified brief. And this has another good dimension to it. Because it is hundreds of kilometers, it is a theater system, not a national system, and it is designed to hit something in the boost phase, not in the terminal phase.

Senator COCHRAN. Have you got money in this budget request to help pay the cost of developing and deploying the system?

General FOGLEMAN. Yes, sir.

Secretary WIDNALL. It is fully funded.

Senator COCHRAN. What is the timeframe for getting it out in the field?

Secretary WIDNALL. 2002.

General FOGLEMAN. In 2002, we will have a demonstrator full-up.

Senator COCHRAN. That is very encouraging.

General FOGLEMAN. Yes, sir.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

ADDITIONAL COMMITTEE QUESTIONS

Madam Secretary, I understand that you have an appointment. We want to honor that. Senator Inouye and I have discussed that we will submit some further questions to you.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

C-17 Multi-Year Procurement

QUESTION: Why do you think that the Air Force's multiyear procurement plan for the C-17 is the best value for the nation compared to other contracting approaches?

ANSWER: The C-17 Multi-Year Procurement (MYP), in contrast to year-by-year contracting, better guarantees that we will get the critical airlift capability we need at a price we can afford. Strategic lift is the warfighting commanders-in-chiefs' number one priority (120 C-17s help meet the strategic airlift requirement), and the average unit flyaway price for the last 80 aircraft will be reduced to $173 million (FY96 dollars). The current MYP offer saves $971 million from the contract prices for annual procurement to fund other critical Air Force modernization programs. These savings come on top of the $4.4 billion in program savings (a 20 percent reduction) that have been negotiated over the past two years.

QUESTION: What are the impacts on the seven-year multiyear procurement plan if the Air Force cannot meet the June 1, 1996, deadline?

ANSWER: Failure of the Government to make a firm commitment to the seven-year Multi-Year Procurement (MYP) plan by June 1, 1996, will negate the offer. We expect any subsequent proposal would be substantially less advantageous to the Government because it would be negatively impacted by loss of opportunity to affect the FY97 aircraft buy (10 percent of the remaining production) with Economic Order Quantity (EOQ) purchases and producibility enhancements. Losing this opportunity, combined with the loss of supplier/vendor confidence in the Government's commitment to MYP, could erode the MYP savings by up to 40 percent ($380 million). Furthermore, delay past Sept. 30, 1996, would cause the loss.of nearly 50 percent ($140 million) of available EOQ funding due to expiration of those funds. Finally, out-year reductions of $1,271 million ($971 million multi-year savings plus $300 million EOQ recoupment) have already been made in the C-17 program and used to fund other Air Force modernization programs. Without the savings offered by the MYP proposal, the C-17 is not executable.

Military Pay Raise

QUESTION: Does the military pay raise recommended in the FY 1997 budget close the gap between military pay and comparable private sector wages? If not, what would it take to maintain parity with private sector wages?

ANSWER: Yes, the recommended 1997 military pay raise of three percent, versus the statutory 2.3 percent raise (Employment Cost Index (ECI) equals 2.8 percent), would lower the pay growth delta from 13.2 percent to 13 percent.

Military pay raises are currently based on the ECI minus .5 percent. Elimination of this .5 percent decrement would permit military pay raises to maintain parity with annual growth in private sector wages.

Space and Missile Tracking System (SMTS)

QUESTION: OSD has proposed rescinding $51 million of $135 million Congress added to the Air Force budget to accelerate development of the space and missile tracking system for national missile defenses. What is the impact of this proposed rescission on the Air Force's ability to develop the system in time to support deployment of national missile defenses in 2003?

ANSWER: The baseline and accelerated Space Based Infrared System (SBIRS) Low program requires a successful Flight Demonstration System (FDS). The Air Force proposed acceleration plan relies on a first quarter FY99 FDS launch to achieve a 2003 Initial Operational Capability. A slip to FDS directly affects our ability to meet the Congressionally directed deployment dates.

The department released $84 million of the $135 million plus up assuming the total amount could not effectively be spent in FY96. Since that time, the Space and Missile Tracking System (SMTS) FDS contract with TRW/Hughes has experienced significant cost growth.

Delayed funding and technical problems on the FDS contract have caused the launch date for FDS to slip from fourth quarter FY98 to first quarter FY99. Of the $51 million, $31 million would be used to pay the cost growth on the FDS contract and ensure a first quarter FY99 launch.

The remaining $20 million would be used in FY96 as follows: $10 million to begin competitive activities for an accelerated deployment of the operational SBIRS Low component, and $10 million to accelerate key technologies necessary for the operational system.

The acceleration of the operational SBIRS Low component (SMTS) requires an additional $134 million in FY97 and approximately $2 billion over the Future Years Defense Plan (FY98-03). The additional $2 billion is over and above the current DOD Top Line.

QUESTION: Is the Air Force committed to developing SMTS for the broadest range of missions, including national missile defenses?

ANSWER: Yes. The Space and Missile Tracking System or Space Based Infrared System (SBIRS) Low is a necessary component of the SBIRS architecture. Without a Low component, SBIRS would not achieve the full range of requirements (including national missile defense) captured in the US Space Command Capstone Requirements Document.

Joint Advanced Strike Technologies (JAST) and Joint Strike Fighter (JSF) under a balanced budget

QUESTION: JAST and JSF are a combined effort to develop affordable follow-on attack aircraft to the Navy A-6s, the Air Force

F-16s, and the USMC AV-8Bs. The programs are slated to spend about $11 billion between now and the year 2010. Under the balanced budget, and given the Air Force and Navy priorities to procure additional aircraft in the near-term (F-15, F-16, C-17, F-22, JSTARS, JPATS, F-18E/F, E-2C, and V-22), JAST/JSF may well be unaffordable. For FY97, for the Air Force, which program is a higher priority -- JAST/JSF or F-22?

ANSWER: The time-phased modernization plan for replacing the current fighter fleet is our highest long-term priority. This strategy will allow us to modernize while matching force structure requirements to fiscal reality. The F-22 and Joint Strike Fighter (JSF) will provide our nation with theater air dominance. This includes the capability to protect friendly forces from air attack, while conducting operations deep in enemy airspace at will. The modernization and proliferation of advanced threat systems drive both the need and timing of the F-22/JSF programs.

Like the F-15 and F-16 they replace, the F-22 and JSF are distinct, yet complementary. The F-22 and JSF programs will preserve required capabilities in our core competencies of Air Superiority and Precision Employment. Qualities such as stealth and enhanced situational awareness capabilities are essential to both systems, while super-cruise is a distinct requirement for the F-22. Moreover, the JSF will allow the Air Force to replace the aging F-16 fleet with an affordable, advanced, multi-role strike aircraft that meets defined requirements. Together, F-22 and JSF provide the most cost-effective mix of air superiority and multi-role strike aircraft and will sustain theater air dominance through the 2035-plus time-frame.

QUESTION: When first produced in about 2006, what will JAST cost in then-year dollars?

ANSWER: The Services' Joint Strike Fighter (JSF) Joint Initial Requirements Document (JIRD) established average unit recurring cost goals (FY94 dollars) as follows: Air Force, $28 million; Marine Corps, $30-35 million; and Navy, $31-38 million. Based on the current published Department of Defense inflation indices, these cost goals in FY06 dollars are: Air Force, $36 million; Marine Corps, $40-45 million; and Navy, $40-49 million.

Since the program is still five years away from a Milestone II decision for Engineering and Manufacturing Development, detailed annual procurement costs for the initial production lots have not yet been determined. Those cost estimates will depend on the ultimate winning design concept and contractor for the family of aircraft and the annual procurement mix of the Air Force, Marine Corps and Navy variants.

QUESTION: What threat indications define the requirement for the JAST/JSF program?

ANSWER: The primary threats to current U.S. fighter aircraft are increasingly sophisticated ground-based air defenses and air-to-air systems.

Newer surface-to-air missile (SAM) systems have multi-target engagement capability, employ advanced Electronic Counter-Countermeasure techniques and are more mobile than the systems they replaced. In addition, they are being proliferated to many regions of the world. An example is the Russian-made SA-10 family of surface-to-air missiles. This system has greater range, excellent low-altitude capability, is immune to many current Electronic Countermeasure tactics and can be deployed and assembled within minutes. This system can be found not only in Russia, but also in China, Croatia, the Czech Republic, Belarus, Bulgaria, Kazakhstan, Slovakia, and Ukraine with the potential for deployment to several regional hot spots.

Foreign air-to-air threats include fourth-generation aircraft such as the MiG-29, Su-27, and MIRAGE 2000. Combined with advanced radio frequency and infrared missile systems and avionics, which provide increased detection capability, longer range and more maneuverability, these aircraft are comparable to many current US fighter aircraft. Proliferation of these systems, along with development and deployment of fourth-plus generation aircraft such as the Rafale, Su-35, Gripen, and Eurofighter, will put current US systems at a disadvantage.

The Joint Attack Strike Technology/Joint Strike Fighter program has documented this assessment in its Joint Initial Requirements Document and is providing a more tailored and detailed analysis in a System Threat Assessment Report to be published in November 1996.

Bomber Upgrades and Smart Bombing

QUESTION: Within the limits of unclassified information, if the U.S. had to deploy B-2 and B-1 bombers tomorrow, how much capability for precision bombing does each aircraft possess?

ANSWER: Today the B-1 and B-2 are not equipped to deliver precision guided munitions. Both the B-1 and B-2 will achieve precision weapon capability with integration of the Joint Air-to-Surface Standoff Missile in FY02. By the end of FY96, Block 20 B-2s will be capable of delivering the highly accurate Global Positioning System Aided Munition, an interim weapon until the Joint Direct-Attack Munition (JDAM) is available. The B-2 will be JDAM-capable with delivery of the first Block 30 aircraft, with operational JDAM assets entering the inventory in FY98. The B-1 will be JDAM capable in FY00.

QUESTION: When will the B-2 and B-1 have the capability for precision bombing?

ANSWER: Both the B-1 and B-2 will achieve precision weapon capability with integration of the Joint Air-to-Surface Standoff Munition in FY02. By the end of FY96, Block 20 B-2s will be capable of delivering the highly accurate Global Positioning System Aided Munition, an interim weapon until the Joint Direct-Attack Munition (JDAM) is available. The B-2 will be JDAM-capable with delivery of the first Block 30 aircraft, with operational JDAM assets entering the inventory in FY98. The B-1 will be JDAM capable in FY00.

QUESTION: Are the upgrade programs to give both bombers PGM capabilities on cost and on schedule?

ANSWER: B-1 and B-2 Joint Air-to-Surface Standoff Missile (JASSM) integration is not in the FY97 President's Budget. However, funding is not required until FY99 to provide initial capability on both platforms in FY02. The Air Force is currently pursuing initiatives for full funding of JASSM on the B-1 and B-2 in the Future Years Defense Plan.

PGMs and JASSM

QUESTION: JASSM is intended to replace the terminated TSSAM program. What steps have been taken to prevent the JASSM from becoming another TSSAM program?

ANSWER: We are taking advantage of the lessons learned from Tri-Service Standoff Attack Missile (TSSAM) as we execute the Joint Air-to-Surface Standoff Missile (JASSM) program. JASSM's acquisition approach is based on the concept of cost as an independent variable. Instead of mandating requirements supported by countless military specifications, the JASSM program has only three key performance parameters. All other requirements are tradable to obtain a missile below the threshold average unit price. The JASSM joint requirements and cost goals evolved over the past year in an unprecedented partnership with contractors, the joint warfighters and the acquisition community.

Each JASSM competitor is leveraging off a past or current missile development program. This foundation of experience provides the basis for manufacturing and affordability trades early in the program. On JASSM, unlike TSSAM, the two winning contractors selected for the initial phase will have cost plus contracts and be operating in a competitive environment. The forces of competition will work to ensure both our cost and performance requirements are met.

Quality of Life and Readiness Shortfalls

QUESTION: Recognizing that the Air Force has budgeted for ongoing contingency costs in the budget request, do you feel there is any cause for concern that those budgeted figures may fall short, particularly in Bosnia?

ANSWER: Air Force included $457.7 million ($374.7 million - Southwest Asia: $83.0 million - Bosnia) in the FY97 President's Budget for contingency operations. These amounts are sufficient for the current level of effort in these contingencies. If the level of effort increases or the operations in Bosnia are extended past Dec. 31, 1996, the Air Force budgeted figures may not be sufficient.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

Kirtland AFB

QUESTION: During the Base Closure and Realignment process, the Air Force recommended a significant realignment of Kirtland Air Force Base. Secretary Widnall, given that Kirtland AFB will continue to play a vital role in the Air Force mission, does the Air Force support making infrastructure upgrades that are essential for the safety and security of the base?

ANSWER: Yes. The Air Force supports making infrastructure upgrades essential for the safety and the security of Kirtland AFB. In our FY96 military construction program, we had two infrastructure projects for upgrading the electrical distribution system and the storm drainage system. Both projects were authorized and appropriated. The storm drainage project has been awarded and is at one percent construction. The electrical distribution project recently had bids opened.

QUESTION: The most recent consolidation action at Phillips Lab was taken by the Air Force on January 27, 1992. The Secretary of the Air Force (Rice) announced that he had decided to move forward with the consolidation of the individual directorates, then operating in other geographic locations, into the Phillips Laboratory. Secretary Widnall, does the Air Force intend to proceed with a full consolidation of the Phillips Lab? If so when, if not, why not?

ANSWER: No. The Air Force is proceeding with the partial consolidation approved by Secretary Rice. Full consolidation of the Phillips Laboratory has not been addressed by the Air Force since the 1992 decision to approve this partial consolidation. We are satisfied with the current Phillips Laboratory organizational structure and the physical locations. We do not plan to revisit full consolidation based on several factors, including cost and loss of near-term effectiveness.

Holloman AFB

QUESTION: The German Air Force has located a training mission at Holloman AFB. During Phase I about 30 Tornado aircraft, 300 military, and 700 dependents are expected to arrive in Alamogordo. Secretary Widnall and General Fogleman, how is the beddown of the German Air Force and their dependents going?

ANSWER: The beddown of the German Air Force (GAF) is on track. The Tactical Training Element (TTE) consists of 12 Tornado aircraft and approximately 300 GAF personnel. Accompanying them are approximately 300 German family members. The GAF is activating its TTE on May 1, 1996. The US Secretary of Defense, Dr William Perry, and the German Minister of Defense, Volker Rühe, will participate in the ceremony. Both distinguished visitors will “inspect the troops” and offer remarks prior to the ceremonial transfer of the TTE banner to Col Eckhard Sowada, the TTE commander.

QUESTION: Will there be a Phase II as previously expected? When? Please provide details:

ANSWER: At the request of the German Air Force (GAF), the US Air Force is currently negotiating the expansion of Holloman AFB operations with 30 additional Tornado aircraft (known as Holloman II). Secretary of the Air Force/International Affairs Europe/NATO/Eurasia obtained "approval to negotiate" from the Defense Security Assistance Agency in September 1995. The current Memorandum of Agreement will be amended to incorporate the proposed increase in operations. Holloman II will include approximately 600 additional GAF personnel and 1,000 additional German dependents. Following activation of Holloman II, the mission of the GAF Tactical Training Element will include: Basic, Transition, Re-qualification, Instructor Upgrade and Fighter Weapons Instructor training programs. The German government is paying the total cost of establishing and operating Holloman II through Foreign Military Sales procedures--including approximately $100 million in additional construction costs. Both air forces (United States and German) are aiming toward activating Holloman II in late 1999.

QUESTION: Can you please tell us why this mission is important to the Air Force and to the nation?

ANSWER: US policy in 1989 focused on maintaining a visible, long-term military presence in Europe. During the Cold War, the German-American relationship revolved around standing together to face the forces of the Warsaw Pact. Today, our friendship involves standing together to face the challenges of the future. Whereas our alliance was directed toward deterring war during the Cold War, now it is directed towards creating the conditions of peace. Today, German and American forces are serving together in the Balkans as part of the North Atlantic Treaty Organization (NATO) force implementing the Dayton peace agreement. Through NATO's Partnership for Peace, both our forces are training and exercising together with the nations of the former Warsaw Pact. Establishment of this German training unit not only allows our two air forces to enhance our interoperability and coalition warfare capacity, but more importantly, it is an opportunity to make our strong friendship even stronger.

Cannon AFB EF-111A

QUESTION: General Fogleman, I received the letter you sent to me dated March 21, 1996. In it you referenced an OSD directed joint service study led by the Joint Staff as the basis of you decision to retire the EF-111 during the 3rd quarter of FY98. My staff received this briefing last week. They were informed that you received this briefing on July 18, 1995, and that at that time it was unofficially decided that "alternative 2" which dictated that the EF-111s be retired in 3rd quarter FY98, should be the Air Force position.

We met in my office on July 26, 1995, and at that time we worked to fashion the language that is now in the FY96 Defense Appropriation Act, Public Law 104-61.

I remain unconvinced that the Air Force plan in this regard is either wise or well thought out. If the information my staff received about the July 18th briefing is correct, what was the purpose of the language we agreed on on July 26th, and what has caused the change in Air Force position from then until now?

ANSWER: The purpose of the language agreed upon was to ensure the Air Force had EF-111s available until the EA-6B is ready to meet our needs. This provides a hedge against any unforeseen problems by increasing our crew ratio and attrition reserve aircraft.

The Air Force has not changed its position. In concert with the previous language we developed a Memorandum of Agreement between the Air Force and Navy to ensure the EA-6B achieves milestones building to the capability we need. We increased the crew ratio to 2.0 and are maintaining EF-111s on the ramp at Cannon AFB to provide a ready insurance policy should the EA-6B transition run into unpredicted difficulties. We are working with the Office of the Secretary of Defense (OSD), the Navy, and Marine Corps to minimize the risk and ensure success of this program. Within the Air Force we are working to expedite munitions improvements and new information technologies to perform the Electronic Warfare (EW) mission more effectively.

I appreciate your concern and assure you we are monitoring this program carefully. Based on the points outlined above, I concurred with OSD's decision to retire the EF-111 in 1998. We have taken prudent precautions to ensure we can meet our nations EW requirements during this transition. I will continue to advocate keeping EF-111s until we are absolutely sure the EA-6B program can meet our needs.

Medical Research and Development Consolidation

QUESTION: In 1982, the Congress directed the consolidation of defense infectious disease research programs under the Army as Lead Agent. To effectively deal with this, the services elected to establish an oversight committee called the Armed Services Research Evaluation and Management Committee, or ASBREM. This committee was formally acknowledged by the Congress as the organizational entity for coordination of all defense medical research efforts. Given the success of ASBREM, please provide answers for the following questions: What steps have the services taken to institutionalize the ASBREM process into their planning, programming and budgeting for medical research programs?

ANSWER: The Armed Services Research Evaluation and Management Committee (ASBREM) has facilitated coordination of biomedical programs among the Services to permit the planning of a total Department of Defense program which is responsive to each Service's needs. The Air Force Medical Service (AFMS) conducts its modernization planning and formulation of its Mission Support Plan as outlined in Air Force Policy Directive 10-14, "Modernization Planning," and Air Force Instruction 10-1401, "Modernization Planning Documentation." The AFMS Program Objective Memorandum is built as part of this modernization planning process to include research and development requirements necessary to meet AFMS mission requirements. AFMS modernization planning is fully integrated with Air Force modernization planning at the Major Command level through equivalent mission area plans and also linked from a research and development perspective with the Air Force Materiel Command's Technology Master Process through the Operational Medicine Technical Planning Integrated Product Team at the Human Systems Center. As a member of the ASBREM, the Air Force takes full advantage of the ASBREM process of coordination and program review in ensuring that its medical science and technology needs are met by the lead agent. In addition, the Air Force is a full participant in the current ASBREM reorganization planning process that is designed to better achieve full tri-service medical program integration.

QUESTION: Is there a DOD Directive which formally establishes the ASBREM as a management entity and sets forth an operational and administrative structure? Please provide a copy of this directive and any SOPs governing the functioning of the ASBREM.

ANSWER: There is no specific Department of Defense Directive that establishes the Armed Services Research Evaluation and Management Committee (ASBREM) but there is a charter. The Office of the Under Secretary of Defense for Research and Engineering directed the creation of ASBREM in March 1981. The original charter was established in May 1981 with a reaffirmed charter in July 1992. The Director, Defense Research and Engineering and the Assistant to the Secretary of Defense, Health Affairs (ASD[HA]) or their designated representatives are the co-chairman of the ASBREM Committee. The ASD(HA) is largely responsible for ensuring medical Research, Development, Test and Engineering plans, programs and budgets reflect Defense Health Program planning and programming guidance. A copy of the signed charter is available and can be obtained from the office of either ASBREM co-chair (OSD DDR&E or OSD HA). The ASBREM has historically functioned without documented standard operating procedures. ASBREM currently is in the process of drafting such procedures to ensure continuity of efficient operations.

QUESTION: In consonance with congressional language, how has the oversight and management of ARPA biomedical programs been integrated into the ASBREM process?

ANSWER: Though the Defense Advanced Research Projects Agency is not a member of the Armed Services Biomedical Research Evaluation and Management Committee (ASBREM), their programs are integrated through the Director, Defense Research and Engineering oversight process.

QUESTION: How are the services held accountable for their participation in the ASBREM process?

ANSWER: The Director, Defense Research and Engineering holds each Service accountable through the Defense Technology Area Plan and Technology Assessment Review and Analysis process. Each Joint Technology Coordinating Group, seven total, are established for each of the major Department of Defense biomedical research and development areas. The groups are composed of a single member from the Army, Navy, and Air Force.

QUESTION: We note there are seven Joint Technology Coordinating Groups. How do these groups effect service interaction to ensure appropriate coordination, program relevance, identification of issues, and resolution of those issues? How does the ASBREM hold these Groups accountable for meeting their responsibilities?

ANSWER: The Armed Services Research Evaluation and Management Committee (ASBREM) Joint Technology Coordinating Groups are charged with: 1) at least annual formal coordination and review in regard to appropriate planning, programming and budgeting formulation; 2) development and submission of annual recommendations to the ASBREM Committee on inter-Service distribution of responsibility for program execution, resources, direction or emphasis, new starts or initiatives, and other matters concerning program responsiveness and requirements; and, 3) facilitating effective scientific and developmental coordination established for each of the major Department of Defense biomedical research and development areas. The second question would be better addressed to the ASBREM committee as a whole through its co-chairs.

QUESTION: Does ASBREM have the authority to re-allocate funds? Does this affect the ability ASBREM to function effectively in its oversight role?

ANSWER: The Armed Services Biomedical Research Evaluation and Management Committee (ASBREM) has no authority to re-allocate but they do recommend to the Director, Defense Research and Engineering (DDR&E). As such, they provide a valuable adjunct to the normal DDR&E oversight process.

QUESTION: Describe how the following programs are integrated into the ASBREM process:

a. Breast Cancer Program
b. Defense Women's Health Program
c. HIV Program
d. Persian Gulf Illness Program
e. Telemedicine

ANSWER: The Breast Cancer (BC) and Defense Women's Health Research Programs (DWHRP) are special Congressional appropriations to stimulate and support research in these areas. The House Armed Services Committee in FY94 expressed concern with the dearth of medical research and study of the unique medical problems related to female members of the Armed Forces; $20 million was authorized ($40 million appropriated) in FY94 and FY95 to support women's health research. Appropriations for breast cancer research occurred in FY93, FY94, FY95 and FY96. The Army was appointed programmatic responsibility to lead these Tri-Service efforts. The business plans for breast cancer and defense women's health were briefed to the Armed Services Biomedical Research Evaluation and Management Committee (ASBREM) as part of the annual spring review in FY95. Additionally, to strengthen ASBREM coordination and oversight, the FY95 DWHRP business plan was staffed to each of the seven ASBREM Joint Technology Coordinating Groups (JTCGs) for comment and input. The DWHRP is directed by a steering committee with representation of each military department and the Department of Defense (DOD). To assist in defining needs of the DWHRP and to ensure that the larger National women's health programs were leveraged and not duplicated, the National Academy of Sciences, Institute of Medicine (IOM) was commissioned by the Tri-Service Steering Committee to perform a focused study for the DWHRP. This study was aimed at reviewing existing intramural and extramural research and to identify and recommend relative priorities of research for the FY95 program. This IOM report was staffed to the seven ASBREM JTCGs to assure that these priority areas were sufficiently comprehensive and did not duplicate existing research within the Services. Following JTCG review, the Business Plan for the DWHRP program was officially staffed and approved by ASBREM. The Breast Cancer program is significantly more extramural in nature than DWHRP; however, it also has visibility within ASBREM channels. Special Congressionally appropriated programs such as DWHRP and BC have been significant in demonstrating Tri-Service cooperation with ASBREM coordination having a positive impact on their success.

Funds to support human immunodeficiency virus (HIV) research are managed within the ASBREM JTCG responsible for coordinating research on infectious diseases of, military importance. Most Persian Gulf Illness (PGI) funds are provided within the Cooperative DOD/Veterans Affairs Medical Research Program account, although certain Army studies also support PGI-related efforts. All PGI studies are coordinated among DOD, Department of Veterans Affairs, and Department of Health and Human Services through the Persian Gulf Veterans Coordinating Board. Within DOD, PGI studies are coordinated among multiple ASBREM JTCGs responsible for research concerning infectious diseases, toxicology, operational stress, and medical chemical/biological defense.

Research in the telemedicine arena is also Tri-Service in nature and effectively crosses all aspects of research within the seven JTCGs of ASBREM. Tri-Service coordination of telemedicine activities occurs through the Chief Executive Officer Support Group and the Telemedicine Test-bed Board of Directors. There is overlapping membership among ASBREM and these telemedicine coordinating groups.

QUESTION: What role did ASBREM play during the BRAC process to ensure that unique medical research and development capabilities were preserved? What service capabilities were affected by BRAC and how have these been addressed by the ASBREM?

ANSWER: The Armed Services Medical Evaluation and Management Committee (ASBREM) had no input to the 1995 Base Realignment and Closure Commission (BRAC) process but earlier BRAC activities included some actions relevant to Memoranda of Agreements established by ASBREM. A number of successful collocations of biomedical programs resulted from those actions. BRAC has had no effect on the Air Force medical science and technology program

QUESTION: From the perspective of the services, has the ASBREM been effective in meeting the intent of the Congress in providing oversight and management of the defense medical research and development programs? Please provide statement from each service that includes an assessment of effectiveness, deficiencies and recommended improvements.

ANSWER: The Armed Services Medical Research Evaluation and Management Committee (ASBREM) has worked to coordinate programs among Services to meet the needs of the operational community. It also has led the way in Project Reliance with collocations at Brooks AFB and Wright-Patterson AFB. We anticipate future ASBREM successes as a result of continued Service cooperation in the area of Biomedical Science and Technology. The Air Force is satisfied and fully supports the Reliance process as codified by the ASBREM. The Air Force feels the ASBREM contains viable mechanisms for self-assessment and improvement and has no specific recommended changes to this process.

Defense Medical Research and Development

QUESTION: The services are undergoing considerable change due to downsizing, reduction in operating budgets, and reducing infrastructure. Defense medical research and development programs are under considerable pressure to accommodate to these changes. It is recognized that while the forces are becoming smaller and the missions changing, defense medical research programs must continue to support operational requirements. Programs in infectious disease, combat casualty care, military operational medicine, and others must retain a critical mass in order to meet service needs. With respect to these issues, please respond to the following questions: What action(s) is/are DOD and the services undertaking to address the above issues to preserve the service capabilities to meet their requirements?

ANSWER: To ensure relevancy, the coordinated Service programs are reviewed by each Service as part of their Program Objective Memorandum process. Key to this is a careful and deliberate Service planning process centered on "identifying and retaining core Science and Technology competency." The Armed Services Medical Research Evaluation and Management Committee membership continues to explore opportunities for additional collaborations, officer exchange programs and collocations.

QUESTION: The Committee is aware of a proposal to consolidate the services medical research and development programs and infrastructure into a single defense agency. Where is this proposal in the staffing or implementation process? What advantages would consolidation offer over strengthening the ASBREM process and empowering ASBREM to have a much greater level of authority in managing defense medical research and development?

ANSWER: Consolidating all Defense medical research and development (R&D) under the Armed Forces Medical Research and Development Agency would assist preservation of biomedical R&D capability through consolidation of manpower assets and centralized development of R&D investment strategies. Strengthening ASBREM would not effect efficiencies similar to those which could be gained through day-to-day joint program planning and execution.

QUESTION: How would ASBREM be integrated into functioning of a consolidated defense agency for defense medical research and development?

ANSWER: Conceptually, the Armed Services Biomedical Research Evaluation and Management Committee (ASBREM) would become a Board of Governors for a consolidated defense medical research and development agency. Complete details concerning the organizational structure and functions of a consolidated schedule are currently being developed.

QUESTION: There have historically been interservice issues associated with the practice of Service Lead and Executive Agency with regard to program planning, budgeting and execution. The infectious disease program is a notable example. What advantages and disadvantages would be afforded in the establishment of an Independent biomedical research and development agency in comparison to programs under a Lead Agent?

ANSWER: Creation of a consolidated biomedical research and development agency would provide a structure in which programs could be efficiently coordinated, alternate Service views could be articulated, and centralized investment decisions could be made in the context of DOD's overarching research and development (R&D) needs. In this venue, resources could be reserved to support Service-specific requirements, but R&D needs shared by the Services or most necessary to preserve the health, safety and well-being of joint warfighters would receive priority funding.

Preservation of DOD Medical Research Capability

QUESTION: Globally speaking, what are the services/is the department doing to support preservation of DOD medical research capability?

ANSWER: The Air Force supports continued strong participation in the Armed Services Biomedical Research Evaluation and Management Committee to facilitate coordination among the Services as they plan their respective biomedical programs. Strength of the biomedical program is dependent upon continued close ties to the Service warfighters as part of each Service program.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

C-17

QUESTION: Would you please outline your current procurement and home basing plan for the C-17?

ANSWER: The C-17 program is the centerpiece of our airlift recapitalization efforts, as it replaces a C-141 fleet rapidly approaching the end of its operational service life. 120 C-17s will maintain and enhance our strategic airlift capabilities. A Congressionally approved seven-year Multi-Year Procurement (MYP) procures the remaining 80 aircraft at the maximum rate that is affordable within the Air Force budget (FY97-03: 8-9-13-15-15-15-5) and reduces the average unit flyaway price to $173 million (FY96 dollars).

Charleston AFB, SC, and McChord AFB, WA, will each have 48 aircraft (four squadrons). Both active and Reserve Associate units will operate C-17s at these locations. In addition, we plan to replace C-141s in the Mississippi Air National Guard at Jackson with six C-17s. As a result, Active Reserve Component personnel will make up 41 percent of the C-17 strategic airlift crew force by FY06. An additional eight C-17s will be based at Altus AFB, OK, for aircrew training, and another ten aircraft will be used for backup aircraft inventory across the entire fleet.

F-16

QUESTION: Could you please address the Air Force position on the VER-2 of the Twin Stores Carrier (TSC) specifically in relation to the two JSOW carriage option for the F-16 and any problems that may be associated with the TSC competing for the "Smart Rack?"

ANSWER: The Air Force has no interest in the Twin Stores Carrier (TSC) VER-2 because it does not provide the required Mil-Std-1760 capability without proprietary electronics from M. Technologies. Since this electronic interface was developed as a Small Business Innovative Research program, the design cannot be released outside the US government for four years (Federal Acquisition Regulation 52.227-20). Therefore, the TSC cannot compete for the "Smart Rack" program. The Bomb Rack Unit-55 "Smart Rack" developed by M. Technologies will utilize components already in use by the Air Force and Navy which will simplify logistical support and reduce Operations and Maintenance costs.

Initial Operational Capability for F-15E

QUESTION: If monies were made available, would you consider increasing the F-15E attrition aircraft procurement in FY97 to 6 vice 4 requested, considering that advance procurement funds were provided for six jets last year?

ANSWER: Yes, the Air Force would increase the F-15E attrition reserve aircraft procurement in FY97 if additional procurement funds were provided. An additional $119.9 million would fund procurement of two aircraft ($67.5 million) in FY97 and advance procurement for six aircraft in FY98 ($52.4 million). The FY97 President's Budget includes $185.4 million for four aircraft, so the total required funding for six aircraft in FY97 plus advance procurement for six aircraft in FY98 is $305.3 million.

Undergraduate Flight Officer Program

QUESTION: Would you please assess the success of the integration of USAF tactical navigators and WSOs in the US Navy's Undergraduate Flight Officer Program in Pensacola, Florida? Are you satisfied with the level of training the students are receiving?

ANSWER: The transition from Air Force training to interservice training has been very successful, proceeding as planned and on time. Initial feedback from the gaining units indicates that they are thoroughly pleased with the navigators they are receiving as a result of the new interservice program.

QUESTION: Has the training platform used for advanced training, the T-39N performed to standard? Even if system upgrades were planned, do you see a need to change the platform?

ANSWER: To date, the T-39N has performed quite well as a student training platform. The Air Force sees no need to change platforms at this time.

QUESTION: Can you accept any break in TAC NAV/WSO training, and if the Navy does experience such a break how might you compensate for it?

ANSWER: The Air Force has structured its overall navigator accessions to include those graduates from the Navy's Undergraduate Flight Officer Program. All initial Air Force fighter/bomber/electronic warfare officer (EWO) navigator production is now conducted by the Navy. An unplanned interruption in the TAC navigator/weapons system operator training would decrease Air Force navigator production accordingly. An extended or permanent break would require the Air Force to revert to the previous method of training fighter, bomber, and EWO bound navigators. Considerable lead time and funds would be required to rebuild Air Force equipment and capacity requirements.

Light Defender

QUESTION: Could you please address the Light Defender program, where it stands, and where you would like to see it go?

ANSWER: The Light Defender Foreign Comparative Test (FCT) is on-track for flight testing this summer. We will begin flight testing the Light Defender in July 1996 and expect to finalize our FCT results by December 1996. After we have reviewed the results, the Air Force will be better prepared to address the future prospects of Light Defender.

We expect to complete an additional evaluation of the Light Defender in FY97 using FY96 funding appropriated for operational testing. We have prepared a plan that builds on the FCT results and answers additional questions regarding Light Defender's potential for supporting our mission in suppressing enemy air defenses. The Air Force recognizes the importance of suppressing air defense units before our forces enter the target area. Light Defender remains a potential solution to help us address this need.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

SR-71

QUESTION: I am told that the Deputy Secretary of Defense, John White, has determined that you have no legal basis to fly the SR-71. Can you provide the details on this matter?

ANSWER: The Department of Defense was operating the SR-71 during fiscal year 1996 under the authority contained in section 8080 of the Department of Defense Appropriations Act, FY96. This authority was available only until the enactment of the Intelligence Authorization Act, FY96. Section 102 of the Intelligence Authorization Act, FY96 provides that "the amounts authorized to be appropriated . . . for intelligence and intelligence-related activities are those specified in the classified Schedule of Authorizations prepared to accompany the conference report on bill H.R. 1655 of the One Hundred Fourth Congress." The SR-71 is an intelligence program. The Schedule of Authorizations specifically entered zero for the operation and maintenance of the SR-71. The Schedule of Authorizations is incorporated into the statute. There is not discretion to disregard the amounts specified in the Schedule of Authorizations.

QUESTION: Is it your understanding that DoD has determined that no funds can be obligated for intelligence related programs unless a specific authorization exists under the law?

ANSWER: Section 504 (a) (3) provides that programs that have not been specifically authorized can be executed if they meet the requirements of that section and funds have not been denied under section 504 (b).

QUESTION: Would it be safe to assume, then, that no reprogrammings are legal for intelligence programs unless an act has already approved an authorization at this level?

ANSWER: Section 504 (a) (3) does provide for reprogramming within intelligence programs under specific conditions.

QUESTION: Do you have any concerns with this approach for those tactical intelligence programs under your jurisdiction?

ANSWER: No, to the extent that Tactical Intelligence and Related Architectures (TIARA) requirements can be specifically authorized as submitted in the budget and accommodated via reprogrammings.

C-17 Basing in the Pacific

QUESTION: General Fogleman, Chairman Stevens and I were recently visiting our forces in the Pacific. We heard from numerous sources that the Marines and Army need airlift aircraft stationed in Hawaii to provide cost effective airlift within the Pacific region. Do you have any plans to meet this requirement by stationing the C-17 in Hawaii?

ANSWER: No, we have no plans to base strategic airlift assets outside of the Continental US (CONUS). We do provide theater airlift to the regional warfighting commanders-in-chiefs to support Outside CONUS-based forces. In fact, Pacific Command forces include two C-130 squadrons and the Air National Guard has a C-130 unit based in Hawaii. Strategic airlift, however, is a scarce common-user resource which we traditionally base in the CONUS, since their primary mission is to deploy from major CONUS-based units to distant overseas locations.

QUESTION: General Fogleman, our commanders in the field indicate that the high cost of deadheading airlift aircraft from the mainland to Hawaii drastically reduces the affordability of training outside of the state. As a former head of the Transportation Command do you think it would be reasonable to alter the pricing system used for airlift transportation?

ANSWER: Altering the pricing system used for airlift transportation would have no effect on the high cost of airlift to the Pacific; it would simply change who pays the bill. DOD airlift is Defense Base Operating Fund funded and designed to recover operating costs through the collection of customer revenue. Commanders in the field are the customers owning the requirement, including the financial resources to pay for it. Altering the current pricing system (already set below full cost in order to be commercially competitive), would require a concomitant increase to Air Force Operations and Maintenance funding to subsidize lost revenue, ensuring airlift readiness remains congruent with National objectives.

To assist with minimization of customer costs, Air Mobility Command (AMC) buys airlift from the point closest to the customer. In the Pacific arena, the number of aircraft deployed are considered sufficient for routine theater movements: three C-141s operate out of Yokota and one C-141 operates out of Kadena. Occasionally, demand will exceed available aircraft in theater, wherein AMC initiates work arounds to avoid positioning and depositioning scenarios. If positioning and depositioning are required, AMC will task airlift from the closest available source.

C-17 Basing

QUESTION: General Fogleman, as I understand it, you currently plan to base the C-17s in the active force at McChord and Charleston. Do you believe it would make sense to co-locate a squadron of C-17 aircraft with active Army and Marine units to provide a more rapidly deployable capability?

ANSWER: We plan to base all operational active duty C-17s at Charleston and McChord AFBs, which positions them very close to several large Army and Marine Corps users. This decision follows fundamental basing principles. Strategic airlift, as a scarce common-user asset, is not assigned to regional commanders-in-chief, but is centrally managed by US Transportation Command. Since the primary mission of strategic airlift is to deploy major continental US (CONUS)-based units to distant overseas locations, they are based in the CONUS at either coast. This postures them to support contingencies in either the East or West. Another key principle is concentration. By grouping squadrons together in wings, we achieve major operating and military construction savings as well as important training synergies. Current plans call for 96 operational active duty C-17s, with 48 each at Charleston and McChord, replacing a like number of retiring C-141s. This is the most cost effective basing plan which meets our fundamental basing principles.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

Logistic Aircraft OP20 data

QUESTION: Please provide the OP-20 exhibit data for all logistic aircraft (both OSA and SSA) for FY 1993 to FY 1996. Break out Active vs. Reserve aircraft.

ANSWER: OP20 data for Operational Support Aircraft (OSA) are attached. OP20 data for FY93 and FY94 is not available. The data provided are FY95 to FY97 for both Active and Guard. Contractor maintenance costs (CLS) are not part of the OP20 due to the nature of individual contracts. Information pertaining to CLS costs for OSA aircraft has been provided separately in response to an inquiry seeking airframe, engine, and average costs by mission series.

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL REQUIRED	HOURS*** BUDGET	***********UNIT POL	GS+SS	COST*********** OLR	TOTAL	($1000) ANNUAL BUDGET
PROG-APPN 30 OPERATION AND MAINTENANCE - AF														
BAC 302 MOBILIZATION														
PI 41314F OPERATIONAL SUPPORT AIRLIFT														
WSC C009A0 C-9A														
95-1	1	1	1				103	103	103	703	0	0	703	72
95-2	1	1	1				118	118	118	703	0	0	703	83
95-3	1	1	1				144	144	144	703	0	0	703	101
95-4	1	1	1				100	100	100	703	0	0	703	70
TOTAL			1	2.00	2	0.00	465	465	465	703	0	0	703	327
96-1	1	1	1				220	220	220	754	0	0	754	166
96-2	1	1	1				220	220	220	754	0	0	754	166
96-3	1	1	1				221	221	221	754	0	0	764	167
96-4	1	1	1				221	221	221	754	0	0	754	167
TOTAL			1	3.00	12	0.00	882	882	882	754	0	0	754	665
97-1	1	1	1				172	172	172	784	0	0	764	131
97-2	1	1	1				172	172	172	784	0	0	764	131
97-3	1	1	1				173	173	173	764	0	0	764	132
97-4	1	1	1				173	173	173	784	0	0	764	132
TOTAL			1	3.00	12	0.00	890	690	680	784	0	0	764	527
WSC C012F0 C-12F														
95-1	6	6	6				124	741	741	82	0	0	82	6
95-2	6	6	6				132	795	795	82	0	0	82	65
95-3	6	6	6				169	1013	1013	82	0	0	82	83
95-4	6	5	6				163	894	894	82	0	0	82	73
TOTAL			6	1.50	9	0.00	586	3443	3443	82	0	0	82	282
96-1	5	5	5				193	966	988	74	0	0	74	71
96-2	5	5	5				159	795	795	74	0	0	74	59
96-3	5	5	5				159	795	795	74	0	0	74	59
96-4	5	5	5				159	795	795	74	0	0	74	59
TOTAL			5	1.50	8	0.00	670	3351	3351	74	0	0	74	248
97-1	5	5	5				170	848	848	75	0	0	75	64
97-2	5	5	5				170	850	850	75	0	0	75	64
97-3	5	5	5				170	850	850	75	0	0	75	64
97-4	5	5	5				170	850	850	75	0	0	75	64
TOTAL			5	1.50	8	0.00	680	3398	3398	75	0	0	75	255

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL REQUIRED	HOURS*** BUDGET	*************UNIT POL	QS+SS	COST************* OLR	TOTAL	($1000) ANNUAL BUDGET
PROG-APPN 30 OPERATION AND MAINTENANCE - AF														
BAC 302 MOBILIZATION														
PE 41314F OPERATIONAL SUPPORT AIRLIFT														
WSC C020A0 SMALL VCX														
95-1	3	3	3				116	349	349	453	0	0	453	158
95-2	3	3	3				140	420	420	453	0	0	453	190
95-3	3	3	3				140	420	420	453	0	0	453	190
95-4	3	3	3				191	574	574	453	0	0	453	260
TOTAL			3	2.00	18	0.00	588	1763	1763	453	0	0	453	799
96-1	2	2	2				235	588	588	523	0	0	523	308
96-2	2	2	2				196	392	392	523	0	0	523	205
96-3	2	2	2				196	392	392	523	0	0	523	205
96-4	2	2	2				200	400	400	523	0	0	523	209
TOTAL			2	2.00	16	0.00	834	1772	1772	523	0	0	523	927
97-1	2	2	2				189	378	378	530	0	0	530	200
97-2	2	2	2				189	378	378	530	0	0	530	200
97-3	2	2	2				190	380	380	530	0	0	530	201
97-4	2	2	2				190	380	380	530	0	0	530	201
TOTAL			2	2.00	16	0.00	758	1516	1516	530	0	0	530	803
WSC C021A0 C-21A														
95-1	71	71	71				152	10811	10811	149	0	0	149	1611
95-2	71	71	71				164	11639	11639	149	0	0	149	1734
95-3	71	71	71				164	11654	11654	149	0	0	149	1736
95-4	71	70	70				177	12452	12462	149	0	0	149	1865
TOTAL			71	1.13	80	0.00	657	46556	46556	149	0	0	149	6937
96-1	69	69	70				171	11859	11859	157	0	0	157	1862
96-2	69	69	69				169	11669	11669	157	0	0	157	1832
96-3	69	69	69				169	11669	11669	157	0	0	157	1832
96-4	69	69	69				170	11712	11712	157	0	0	157	1839
TOTAL			69	1.13	78	0.00	679	46909	46909	157	0	0	157	7365
97-1	69	69	69				158	10926	10926	160	0	0	160	1748
97-2	69	69	69				158	10934	10934	160	0	0	160	1749
97-3	69	69	69				158	10934	10934	160	0	0	160	1749
97-4	69	69	69				159	10983	10983	160	0	0	160	1757
TOTAL			69	1.13	78	0.00	634	43777	43777	160	0	0	160	7004

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL REQUIRED	HOURS*** BUDGET	************UNIT POL	GS+SS	COST************* DLR	TOTAL	($1000) ANNUAL BUDGET
PROG-APPN 30 OPERATION AND MAINTENANCE – AF														
BAC 302 MOBILIZATION														
PE 41314F OPERATIONAL SUPPORT AIRLIFT														
WSC C032A0 C-32A														
95-1	0	0	0				0	0	0	1283	0	0	1283	0
95-2	0	0	0				0	0	0	1283	0	0	1283	0
95-3	0	0	0				0	0	0	1283	0	0	1283	0
95-4	0	0	0				0	0	0	1283	0	0	1283	0
TOTAL			0	2.00	0		0	0	0	1283	0	0	1283	0
96-1	0	0	0				0	0	0	1353	46	0	1399	0
96-2	0	0	0				0	0	0	1353	46	0	1399	0
96-3	0	0	0				0	0	0	1353	46	0	1399	0
96-4	0	0	0				0	0	0	1353	46	0	1399	0
TOTAL			0	2.00	0		0	0	0	1353	46	0	1399	0
97-1	1	1	0				336	168	168	1371	45	0	1416	238
97-2	2	2	2				224	336	336	1371	45	0	1416	476
97-3	4	4	3				168	504	504	1371	45	0	1416	714
97-4	6	6	5				168	840	840	1371	45	0	1416	1189
TOTAL			2	1.50	5	0.00	739	1848	1848	1371	45	0	1416	2617
WSC C135B0 C-135B														
95-1	1	1	1				186	186	186	1213	520	719	2452	456
95-2	1	1	1				131	131	131	1213	520	719	2452	321
95-3	1	1	1				170	170	170	1213	520	719	2452	417
95-4	1	1	1				196	196	196	1213	520	719	2452	481
TOTAL			1	2.00	4	0.00	683	683	683	1213	520	719	2452	1675
96-1	1	1	1				166	166	166	1443	295	498	2236	371
96-2	1	1	1				166	166	166	1443	295	498	2236	371
96-3	1	1	1				167	167	167	1443	295	498	2236	373
96-4	1	1	1				167	167	167	1443	295	498	2236	373
TOTAL			1	2.00	4	0.00	666	666	666	1443	295	498	2236	1488
97-1	1	1	1				167	167	167	1462	292	518	2272	379
97-2	1	1	1				167	167	167	1462	292	518	2272	379
97-3	1	1	1				168	168	168	1462	292	518	2272	382
97-4	1	1	1				168	168	168	1462	292	518	2272	382
TOTAL			1	2.00	4	0.00	670	670	670	1462	292	518	2272	1522

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL REQUIRED	HOURS*** BUDGET	************UNIT POL	QS+SS	COST************ DLR	TOTAL	($1000) ANNUAL BUDGET
PROG-APPN 10 OPERATION AND MAINTENANCE - AF														
BAC 302 MOBILIZATION														
PE 41314F OPERATIONAL SUPPORT AIRLIFT														
WSC C135CD KC-135C														
95-1	1	1	1				136	136	136	1305	520	719	2544	346
95-2	1	1	1				171	171	171	1305	520	719	2544	435
95-3	1	1	1				158	158	158	1305	520	719	2544	402
95-4	1	1	1				138	138	138	1305	520	719	2544	351
TOTAL			1	2.00	4	0.00	603	603	603	1305	520	719	2544	1534
96-1	1	1	1				166	166	166	1438	295	628	2361	392
96-2	1	1	1				166	166	166	1438	295	628	2361	392
96-3	1	1	1				167	167	167	1438	295	628	2361	394
96-4	1	1	1				167	167	167	1438	295	628	2361	394
TOTAL			1	2.00	4	0.00	666	666	666	1438	295	628	2361	1572
97-1	1	1	1				109	109	109	1457	292	621	2370	258
97-2	1	1	1				109	109	109	1457	292	621	2370	258
97-3	1	1	1				110	110	110	1457	292	621	2370	261
97-4	1	1	1				110	110	110	1457	292	621	2370	261
TOTAL			1	2.00	4	0.00	438	438	438	1457	292	621	2370	1038
WSC C135EO EC-1355														
95-1	0	0	0				0	3	3	0	256	0	256	1
95-2	0	0	0				0	0	0	0	256	0	256	0
95-3	0	0	0				0	10	10	0	256	0	256	3
95-4	0	0	0				0	141	141	0	256	0	256	36
TOTAL			0				0	154	154	0	256	0	256	39
96-1	0	0	0				0	0	0	0	120	0	120	0
96-2	0	0	0				0	0	0	0	120	0	120	0
96-3	0	0	0				0	0	0	0	120	0	120	0
96-4	0	0	0				0	0	0	0	120	0	120	0
TOTAL			0				0	0	0	0	120	0	120	0
97-1	0	0	0				0	0	0	0	120	0	120	0
97-2	0	0	0				0	0	0	0	120	0	120	0
97-3	0	0	0				0	0	0	0	120	0	120	0
97-4	0	0	0				0	0	0	0	120	0	120	0
TOTAL			0				0	0	0	0	120	0	120	0

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL REQUIRED	HOURS*** BUDGET	*************UNIT POL	GS+SS	COST************* OLR	TOTAL	($1000) ANNUAL BUDGET
PROG-APPN 30 OPERATION AND MAINTENANCE - AF														
BAC 302 MOBILIZATION														
PE 41314F OPERATIONAL SUPPORT AIRLIFT														
WSC C135EM KC-135E														
95-1	0	0	0				0	7	7	1392	202	392	1986	14
95-2	0	0	0				0	35	35	1392	202	392	1986	70
95-3	0	0	0				0	180	180	1392	202	392	1986	357
95-4	0	0	0				0	33	33	1392	202	392	1986	66
TOTAL			0				0	255	255	1392	202	392	1986	506
96-1	0	0	0				0	0	0	1459	189	267	1915	0
96-2	0	0	0				0	0	0	1459	189	267	1915	0
96-3	0	0	0				0	0	0	1459	189	267	1915	0
96-4	0	0	0				0	0	0	1459	189	267	1915	0
TOTAL			0				0	0	0	1459	189	267	1915	0
97-1	0	0	0				0	0	0	1478	189	208	1875	0
97-2	0	0	0				0	0	0	1478	189	208	1875	0
97-3	0	0	0				0	0	0	1478	189	208	1875	0
97-4	0	0	0				0	0	0	1478	189	208	1875	0
TOTAL			0				0	0	0	1478	189	208	1875	0
WSC T043AC T-43AC														
95-1	2	2	2				149	298	298	628	20	63	711	212
95-2	2	2	2				202	404	404	628	20	63	711	287
95-3	2	2	2				163	326	326	628	20	63	711	232
95-4	2	2	2				102	204	204	628	20	63	711	145
TOTAL			2	2.50	10	0.00	616	1232	1232	628	20	63	711	876
96-1	2	2	2				220	439	439	683	61	43	787	345
96-2	2	2	2				220	439	439	683	61	43	787	345
96-3	2	2	2				220	440	440	683	61	43	787	346
96-4	2	2	2				220	440	440	683	61	43	787	346
TOTAL			2	2.60	10	0.00	879	1758	1758	683	61	43	787	1384
97-1	2	2	2				210	419	419	692	61	40	793	332
97-2	2	2	2				210	419	419	692	61	40	793	332
97-3	2	2	2				210	420	420	692	61	40	793	333
97-4	2	2	2				210	420	420	692	61	40	793	333
TOTAL			2	2.50	10	0.00	839	1678	1678	692	61	40	793	1331

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

PROG APPN 55 OPERATION AND MAINTENANCE - ANG
BAC 551 OPERATING FORCES
PE 5431[illegible] OPERATIONAL SUPPORT AIRLIFT (ANG)
WSC CODE [illegible] C-12J

[illegible]	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	***TOTAL HOURS*** BUDGET	***UNIT COST*** POL	***UNIT COST*** GS+SS	***UNIT COST*** DLR	***UNIT COST*** TOTAL	($1000) ANNUAL BUDGET
95 1	6	6	6				96	576	576	81	0	0	81	47
95 2	6	6	6				128	769	769	81	0	0	81	62
95 3	6	6	6				105	629	629	81	0	0	81	51
95 4	6	4	5				107	533	533	81	0	0	81	43
TOTAL			6	1.50	9	0.00	436	2507	2507	81	0	0	81	203
96 1	0	0	2				0	0	0	92	0	0	92	0
96 2	0	0	0				0	0	0	92	0	0	92	0
96 3	0	0	0				0	0	0	92	0	0	92	0
96-4	0	0	0				0	0	0	92	0	0	92	0
TOTAL			0	1.50	0	0.00	0	0	0	92	0	0	92	0
97 1	0	0	0				0	0	0	93	0	0	93	0
97 2	0	0	0				0	0	0	93	0	0	93	0
97-3	0	0	0				0	0	0	93	0	0	93	0
97 4	0	0	0				0	0	0	93	0	0	93	0
TOTAL			0	1.50	0	0.00	0	0	0	93	0	0	93	0

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	BUDGET	************UNIT COST************ POL	GS+SS	DLR	TOTAL	($1000) ANNUAL BUDGET
PROG APPN 55 OPERATION AND MAINTENANCE - ANG														
BAC 551 OPERATING FORCES														
PE 543141 OPERATIONAL SUPPORT AIRLIFT (ANG)														
WSC C021A0 C-21A														
95 1	4	4	4				66	263	263	148	0	0	148	39
95 2	4	4	4				90	362	362	148	0	0	148	54
95 3	4	4	4				90	362	362	148	0	0	148	54
95 4	4	4	4				92	369	369	148	0	0	148	55
TOTAL			4	2.00	8	0.00	339	1356	1356	148	0	0	148	201
96 1	4	4	4				165	660	660	158	0	0	158	104
96 2	4	4	4				165	660	660	158	0	0	158	104
96 3	4	4	4				165	660	660	158	0	0	158	104
96 4	4	4	4				165	660	660	158	0	0	158	104
TOTAL			4	2.00	8	0.00	660	2640	2640	158	0	0	158	417
97 1	4	4	4				165	660	660	160	0	0	160	106
97 2	4	4	4				165	660	660	160	0	0	160	106
97 3	4	4	4				165	660	660	160	0	0	160	106
97 4	4	4	4				165	660	660	160	0	0	160	106
TOTAL			4	2.00	8	0.00	660	2640	2640	160	0	0	160	422

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

PROG-APPN 55 OPERATION AND MAINTENANCE - ANG
BAC 551 OPERATING FORCES
PE 54314F OPERATIONAL SUPPORT AIRLIFT (ANG)
WSC C022B0 C-22B

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	BUDGET	***UNIT COST*** POL	GS+SS	DLR	TOTAL	($1000) ANNUAL BUDGET
95 1	3	3	3				156	468	468	1039	0	7	1046	490
95 2	3	3	3				244	732	732	1039	0	7	1046	766
95 3	3	3	3				218	653	653	1039	0	7	1046	683
95 4	3	3	3				193	580	580	1039	0	7	1046	607
TOTAL			3	2.00	6	0.00	811	2433	2433	1039	0	7	1046	2545
96 1	2	2	2				135	337	337	1097	0	2	1099	370
96 2	2	2	2				168	337	337	1097	0	2	1099	370
96 3	2	2	2				168	337	337	1097	0	2	1099	370
96 4	2	2	2				169	338	338	1097	0	2	1099	371
TOTAL			2	2.00	4	0.00	635	1349	1349	1097	0	2	1099	1483
97 1	2	2	2				168	337	337	1111	0	2	1113	375
97 2	2	2	2				168	337	337	1111	0	2	1113	375
97 3	2	2	2				168	337	337	1111	0	2	1113	375
97 4	2	2	2				169	338	338	1111	0	2	1113	376
TOTAL			2	2.00	4	0.00	674	1349	1349	1111	0	2	1113	1501

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

PROG APPN 55 OPERATION AND MAINTENANCE - ANG
BAC 551 OPERATING FORCES
PE 54314[illegible] OPERATIONAL SUPPORT AIRLIFT (ANG)
WSC CO[illegible] C 26A

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	BUDGET	***UNIT COST*** POL	GS+SS	DLR	TOTAL	($1000) ANNUAL BUDGET
95 1	11	11	11				118	1301	1301	81	0	0	81	105
95 2	11	11	11				139	1526	1526	81	0	0	81	124
95 3	11	11	11				132	1454	1454	81	0	0	81	118
95 4	11	11	11				134	1471	1471	81	0	0	81	119
TOTAL			11	1.50	17	0.00	523	5752	5752	81	0	0	81	466
96 1	1	1	6				21	125	125	87	0	0	87	11
96 2	1	1	1				125	125	125	87	0	0	87	11
96 3	1	1	1				125	125	125	87	0	0	87	11
96 4	1	1	1				125	125	125	87	0	0	87	11
TOTAL			2	1.50	2	0.00	222	500	500	87	0	0	87	44
97 1	0	0	0				0	0	0	88	0	0	88	0
97 2	0	0	0				0	0	0	88	0	0	88	0
97 3	0	0	0				0	0	0	88	0	0	88	0
97 4	0	0	0				0	0	0	88	0	0	88	0
TOTAL			0	1.50	0	0.00	0	0	0	88	0	0	88	0

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

PROG APPN 55 OPERATION AND MAINTENANCE - ANG
BAC 551 OPERATING FORCES
PE 54318 OPERATIONAL SUPPORT AIRLIFT (ANG)
WSC C026B0 C 26B

FY QTR	PAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	BUDGET	************UNIT COST************ POL	GS+SS	DLR	TOTAL	($1000) ANNUAL BUDGET
95 1	22	22	22				137	3023	3023	81	0	0	81	245
95 2	22	22	22				148	3260	3260	81	0	0	81	264
95 3	22	22	22				166	3647	3647	81	0	0	81	295
95 4	22	22	22				187	4108	4108	81	0	0	81	333
TOTAL	.		22	1.50	33	0.00	638	14038	14038	81	0	0	81	1137
96 1	23	23	22				122	2750	2750	87	0	0	87	239
96 2	23	23	23				120	2750	2750	87	0	0	87	239
96 3	23	23	23				120	2750	2750	87	0	0	87	239
96 4	23	23	23				120	2750	2750	87	0	0	87	239
TOTAL			23	1.50	35	0.00	481	11000	11000	87	0	0	87	957
97 1	12	12	18				125	2187	2187	88	0	0	88	192
97 2	12	12	12				182	2187	2187	88	0	0	88	192
97 3	12	12	12				182	2188	2188	88	0	0	88	193
97 4	12	12	12				182	2188	2188	88	0	0	88	193
TOTAL			13	1.50	18	0.00	654	8750	8750	88	0	0	88	770

AIR FORCE WEAPON SYSTEM/FLYING HOUR COST DATA - EXHIBIT OP20-E

DOLLAR AMOUNTS ARE BASED ON COMPOSITE FACTORS AND MAY NOT REFLECT DOLLARS CONTAINED IN OTHER BUDGET DOCUMENTS

FY QTR	TAA	PAI	APAI	CREW RATIO	NUMBER OF CREWS	HOURS CREW MONTH	AVG UTIL RATE	***TOTAL HOURS*** REQUIRED	BUDGET	************UNIT COST************ POL	GS+SS	DLR	TOTAL	($1000) ANNUAL BUDGET
PROG APPN 55 OPERATION AND MAINTENANCE - ANG														
BAG 55[illegible] OPERATING FORCES														
PE 54[illegible] OPERATIONAL SUPPORT AIRLIFT (ANG)														
WSC 104 [illegible] T-43AU														
95 1	2	2	2				114	227	227	663	0	165	828	188
95 2	2	2	2				140	280	280	663	0	165	828	232
95 3	2	2	2				158	315	315	663	0	165	828	261
95 4	2	2	2				163	326	326	663	0	165	828	270
TOTAL			2	2.00	4	0.00	574	1148	1148	663	0	165	828	951
96 1	2	2	2				244	489	489	716	0	232	948	464
96 2	2	2	2				244	489	489	716	0	232	948	464
96 3	2	2	2				244	489	489	716	0	232	948	464
96 4	2	2	2				244	489	489	716	0	232	948	464
TOTAL			2	2.00	4	0.00	978	1956	1956	716	0	232	948	1854
97 1	2	2	2				244	489	489	726	0	220	946	463
97 2	2	2	2				244	489	489	726	0	220	946	463
97 3	2	2	2				244	489	489	726	0	220	946	463
97 4	2	2	2				244	489	489	726	0	220	946	463
TOTAL			2	2.00	4	0.00	978	1956	1956	726	0	220	946	1850

Depot Maintenance for Logistic Aircraft

QUESTION: Please provide the depot maintenance (broken down by airframes and engines) for the same logistic aircraft. Please provide an average cost per year by T/M/S.

ANSWER: The following depicts applicable Air Force Operational Support Aircraft programmed depot maintenance (PDM) costs for engines and airframes. Does not include Air National Guard/Air Force Reserve.

($M)	FY93 Eng/PDM	FY94 Eng/PDM	FY95 Eng/PDM	FY96 Eng/PDM
C-12 F/J	.6/0	.6/0	.1/0	0/0
C-9A	.8/0	.8/0	.8/0	.9/3.0
C-21A	5.1/0	6.9/0	5.0/0	8.0/0
C-20A	0/2.2	.3/3.0	0/2.3	.1/3.5
T-43A	0/1.3	0/0	0/0	0/0
Total	$6.5/3.5	$8.6/3.0	$5.9/2.3	$9.0/6.5

OP20 data B52, B1, B2

QUESTION: Please provide the OP-20 exhibit data for the B-52, B-1, B-2 aircraft for FY1994 to FY97. Break out Active vs. Reserve aircraft.

ANSWER: OP-20 exhibit data is not available for FY94. However, FY95 to FY97 data is provided below.

	HOURS	COST/HR ($)	COST ($ K)
Active AF			
B-52H			
FY95	22,764	6,021	137,062
FY96	24,801	7,427	184,197
FY97	21,384	7,236	154,735
B-1B			
FY95	25,414	9,912	251,904
FY96	21,850	9,713	212,229
FY97	19,488	9,560	186,305
B-2A			
FY95	1,468	14,172	20,804
FY96	1,935	12,004	23,228
FY97	2,200	12,585	27,687

Air National Guard			
B-1B			
FY95	2,200	9,521	20,946
FY96	4,240	11,685	49,544
FY97	4,642	10,842	50,329
Air Force Reserve			
B-52H			
FY95	1,823	6,370	11,613
FY96	3,060	8,369	25,609
FY97	2,840	8,037	22,825

B-1/B-2/B-52 Squadron Cost Data

QUESTION: Provide the annual average operating cost (FY 1995, FY 1996) for a B-1, B-2 (list how many aircraft), and B-52 squadron?

ANSWER: The costs are as follows:

The Air National Guard recently converted a unit to B-1B Strategic Bomber aircraft with a projected total of ten Primary Authorized Aircraft (PAA). Actual annual operating costs for this unit are not yet available due to the phasing-in of aircraft inventory during the past several years. The following represents FY95 and FY96 cost estimates for operating a ten PAA B-1B unit in the Air National Guard.

B-1B (10 PAA)	FY95	FY96
O&M	$ 69.0	$ 77.5
OP-20		
Fuel	10.7	11.2
Organizational/Intermediate Maintenance	4.4	5.2
Depot Level Reparables	21.5	28.5
Non-OP-20	22.0	22.7
Depot Maintenance	10.4	9.9
Mil Pers	15.3	15.8

The Air Force Reserve B-52 squadron did not reach full operational capability until July of FY95. The FY95 column reflects actual cost data for that partially operational year.* FY96 will be the first full year that the AF Reserve supports a complete squadron. A complete squadron is based on 8 PAA, 2,954 flying hours, 250 civilians, 78 drill officers, and 565 drill enlisted personnel.

B-52 (8 PAA)	FY95*	FY96
O&M	33.8	49.4
OP-20		
Fuel	4.6	7.7
Organizational/Intermediate Maintenance	1.0	1.8
Depot Level Reparables	10.1	16.0
Non-OP-20	12.0	16.5
Depot Maintenance	6.1	7.4
Mil Pers	4.6	4.8

The following is the Active Air Force average annual operating costs based on the Systematic Approach to Better Long-Range Estimating (SABLE) model. We do not have typical squadron info on the B-2A. Therefore, this is based on an average from our accounting database.

B-1B (PAA 12)	FY95	FY96
O&M	$ 87.6	$ 94.6
OP-20		
Fuel	16.5	17.2
Organizational/Intermediate Maintenance	6.7	5.8
Depot Level Reparables	28.6	35.5
Non-OP-20	23.2	23.9
Depot Maintenance	12.6	12.2
Mil Pers	27.4	27.6

B-2A (PAA 8)	FY95	FY96
O&M	$ 68.1	$ 55.3
OP-20		
Fuel	3.1	2.5
Organizational/Intermediate Maintenance	10.5	6.9
Depot Level Reparables	2.6	6.3
Non-OP-20	29.9	37.3
Depot Maintenance	22.0	2.3
Mil Pers	19.2	19.6

B-52 (PAA 12)	FY95	FY96
O&M	$ 58.7	$ 60.2
OP-20		
Fuel	11.7	12.2
Organizational/Intermediate Maintenance	2.0	1.9
Depot Level Reparables	19.6	21.6
Non-OP-20	21.3	24.1
Depot Maintenance	9.6	9.4
Mil Pers	30.9	32.7

RE-ENLISTMENT RATES

QUESTION: What are your first and second term reenlistment rates for the last ten years?

ANSWER: Retention has remained relatively constant throughout the period, and remains on track thus far in FY96 (first term: 63 percent and second term: 77 percent). Reenlistment rates for the past ten years are as follows:

YEAR	1st Term	2nd Term
86	58%	77%
87	62%	79%
88	50%	79%
89	59%	77%
90	51%	69%
91	59%	77%
92	59%	76%
93	61%	82%
94	60%	81%
95	63%	78%

OSA

QUESTION: Regarding Operational Support Aircraft (OSA), what is the Air Force position on single service ownership for aircraft?

ANSWER: The Air Force is neutral on the issue of single Service ownership of Operational Support Airlift (OSA) aircraft. This position was established in January 1995 in response to the same question posed at that time by the Commission on Roles and Missions and remains unchanged. The Air Force fully supports the Joint Operational Support Airlift Center (JOSAC) currently being established within the US Transportation Command. Scheduling of all Department of Defense Continental US-based OSA aircraft will be consolidated in the JOSAC which should significantly improve the peacetime efficient use of the DOD OSA fleet.

NAVY UNIQUE FLEET ESSENTIAL AIRCRAFT (NUFEA)

QUESTION: How do you interpret the Navy Unique Fleet Essential Aircraft (NUFEA)? Do you include C-9s, and C-130s in that category?

ANSWER: According to Navy sources, Navy Unique Fleet Essential Aircraft include C-9s, C-20s, C-130s, and C-12s.

B-1, B-52, F-15 Mission Capable Rates

QUESTION: What is the Mission Capable Rate for B-1, B-52, and F-15 squadrons by month for the last five years? Provide breakout by active reserve squadrons.

ANSWER: The Mission Capable Rates for B-1, B-52, and F-15 squadrons by month for the last five years are provided in the attached charts. Active and reserve rates are reflected.

F15AB (MC)

ANG	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY96												
102FW	65.9	42.7	44.4	52.7	57.6	70						
131FW	71.6	52.6	66	71.8	68.7	70.2						
142FG	72.2	74.6	63.8	64.9	57.7	68.1						
154CW	78.9	74.7	66.3	63.7	60.2	65.8						
159FG	56.1	76.3	64.5	70.6	75.3	73.4						
FLEET	68.8	64.3	67.4	67.7	61	61.2						
FY95												
102FW	65.5	49.3	43.7	57.1	47.1	56.9	64.8	61.2	59.5	61.9	61.1	63.1
116FW	71.5	73.6	73.8	72.2	76.5	73	70.7	84.1	81.3	78.6	79.8	93.5
131FW	67.1	53.9	64.5	78.8	65.7	54	64	73.8	74.9	71.6	73.3	70.8
142FG	75.7	74.2	53.6	58.8	71.5	69.7	66.3	70.6	73.2	66.4	71	67.8
154CW	67.6	66.4	63.9	70	64.5	63.7	67.8	74.7	71.3	69.3	68.7	69.5
159FG	66.6	57.8	68	64.9	57.8	62.8	67	62.8	54.8	70.3	33.4	47.8
FLEET	70	69	71.4	68.8	61.6	63.1	66.7	64.2	63.5	66.7	70.8	67.8
FY94												
102FW	84.5	73.8	77.7	73.6	61.1	75.9	68.8	71.9	59.6	61.3	66	68.5
116FW	72.3	70.9	70.9	60.8	78.1	78	79.1	77.9	72.3	81.2	76.4	77.2
131FW	67.8	68.1	73.9	58.4	63.9	58	55.9	63.3	58.2	62.3	65.5	69.1
142FG	60.8	60.1	73.9	66.5	71.1	76.2	69.4	65	81.7	79.9	76.1	76
154CW	65.2	59.6	64	65.3	73.7	83.7	79.3	77.6	73.1	77.8	71.1	73.5
159FG	65.6	74.3	81.2	72.5	75.7	74.3	78.5	71.5	70.4	56.1	61.7	66.5
FLEET	73.5	72.5	73.9	69.3	67.7	73.7	66.5	70.5	74.5	71.2	70.6	69.2
FY93												
102FW	75.1	55.8	63.7	72.9	74.8	75	75.1	82.1	78.7	76	77.5	82.6
116FW	78.3	72	73.9	75.9	73.9	74.8	73.9	84.9	76.3	74.9	72.4	81.1
131FW	58.3	59.1	60.7	52.1	55.8	68.2	78.4	72.5	63.6	74.4	68.6	74.6
142FG	72.4	69.5	75.4	77.2	63.8	68.3	65.6	76.1	64.7	75.2	74	71.6
154CW	58.7	65.5	55.1	65.3	64.6	72.5	75.9	82.3	74.9	75.5	68.2	67.6
159FG	68	72.4	74.6	70.9	67.5	72.8	72.3	78.4	66	65	74.3	66.6
FLEET	65.2	73.6	69.4	68.9	66	67.4	69.1	66.9	72	73.6	79.5	70.8

F15AB (MC)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY92												
102FW	64.5	62.5	70	71.1	64.7	71.7	67.5	71.4	76.1	71.8	75.1	73.6
116FW	74.5	72.6	73.8	88.1	77.8	79.1	66.1	75.1	71.7	64.1	N/A	74.6
131FW	45.9	51.1	42.9	51.8	47.7	N/A	60.3	48.8	49.3	54.8	60.7	63.8
142FG	69.7	77.4	79.8	78.6	59.2	62.7	74.6	70.3	73.7	68.9	67	72.2
154CW	74.7	72	76.5	72	70.2	62.7	66.3	67.5	65.5	62.5	68.3	55.8
159FG	79.9	76.2	62.6	79.7	79.2	79.9	67	66.4	66.2	67.6	72.2	74.5
FLEET	72.6	68.3	70.7	71.2	69.8	68.8	74.5	67.6	74.7	67.4	67.1	67.7
FY91												
102FW								75.5	81	77.5	75	73.3
116FW								72.6	74.3	73.8	71.2	68.8
131FW								N/A	51.8	52	33.2	46.3
142FG								69.2	81	72.5	80.1	72.6
154CW								71.2	70.8	77.1	65.3	77.4
159FG								69	72.5	67	64.4	73.2
FLEET	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70.5	70.8	75.1	71.3	75

F15CD (MC)

[illegible]/ACC [illegible]	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY96												
1FW	85.4	83.7	83.3	85.5	82.5	75.1						
33FW	75.7	78.3	81.0	80.2	78.8	78.3						
57WG	80.9	82.0	80.8	77.2	78.8	78.6						
366WG	65.9	59.1	55.8	66.1	66.9	72.1						
FLEET	78.4	78.3	78.7	80.2	78.9	76.3						
FY95												
1FW	83.6	87.7	86.7	80.8	82.3	85.2	85.3	80.2	80.4	75.2	79.5	83.9
33FW	82.9	82.4	82.0	79.4	83.4	83.7	83.3	81.8	83.6	82.2	83.2	75.9
57WG	72.1	72.7	65.9	75.5	80.2	78.6	83.2	76.9	85.2	82.9	85.4	87.5
366WG	69.7	79.9	65.6	75.0	70.7	72.4	61.0	58.6	62.7	67.8	67.9	80.1
F15C/DFLEET	80.9	83.1	79.9	78.7	81.1	82.2	81.1	77.5	79.8	77.9	80.0	80.9
FY94												
1FW	85.1	81.0	82.9	82.4	82.5	83.9	85.1	86.3	80.0	81.4	83.8	83.2
33FW	86.2	87.4	85.0	82.8	78.9	74.4	72.8	75.4	82.7	83.8	84.4	84.2
35WG	86.4	89.6	85.9	76.4	81.8	70.1	71.5	81.9	70.7	80.8	82.4	74.8
57WG	85.3	81.7	79.8	46.1	49.3	75.9	80.9	85.1	87.2	69.3	81.0	80.3
366WG	81.2	87.1	76.6	77.4	78.1	79.5	71.3	61.7	68.8	82.4	83.9	87.6
FLEET	85.3	84.1	82.9	77.7	77.3	78.5	78.4	80.0	79.9	81.8	83.6	82.9
FY93												
1FW	85.5	89.2	87.4	82.6	81.5	76.6	80.5	85.8	80.4	78.2	80.0	84.1
33FW	81.5	81.1	79.0	81.9	84.5	87.3	86.7	86.6	84.7	85.9	84.2	87.1
AFI	79.7	88.8	90.7	85.4	83.4	90.2	90.1	90.1	76.9	76.9	86.6	85.3
366WG	44.1	61.2	67.5	70.6	67.5	73.0	70.7	83.0	81.0	82.8	77.0	66.3
57FW	81.1	90.5	83.0	85.3	86.1	91.6	91.0	85.0	85.6	85.8	87.1	83.1
325FW	89.0	87.2	90.0	91.9	87.2	88.4	88.1	89.4	89.3	N/A	N/A	N/A
FLEET	82.9	84.9	85.0	85.0	83.5	84.2	84.7	87.0	84.1	81.9	82.4	83.8

F15CD (MC)

FY92	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1FW	81.8	82.1	85.4	82.4	82.7	86.7	85.5	89.1	86.6	85.5	84.3	85.9
33FW	96.0	95.2	95.2	95.5	96.0	96.5	96.1	96.4	96.9	91.0	92.7	96.3
AFI	81.2	94.5	87.5	88.1	87.8	87.0	86.4	85.4	86.2	85.0	82.7	84.7
57FW	91.3	94.1	85.8	91.8	87.0	86.7	85.1	83.6	80.5	83.6	85.8	82.8
325FW	82.6	84.4	86.7	87.6	86.9	88.0	87.4	89.4	88.3	87.3	88.0	87.5
366WG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	69.0	59.5	73.2
FLEET	83.9	85.9	83.7	85.7	85.8	86.6	86.0	87.1	87.0	85.6	83.9	85.6
FY91												
1FW	76.6	76.8	80.3	80.5	81.2	88.4	80.7	83.3	81.4	81.5	78.4	82.9
33FW	83.5	83.1	87.0	85.4	84.5	85.8	84.7	85.8	86.5	88.7	86.8	86.5
48FIS	86.6	86.7	89.8	88.3	88.8	86.0	89.2	83.2	80.3	81.5	84.8	89.1
49FW	85.4	84.8	87.8	85.1	86.2	87.3	90.0	88.1	84.5	85.8	83.1	88.8
57FW	88.9	87.9	86.9	87.5	89.2	90.3	78.0	86.2	85.0	83.8	91.0	92.2
AFI	84.3	90.3	91.0	85.5	81.0	88.1	78.1	83.0	84.1	78.6	82.7	84.9
325TTW	89.5	90.3	91.1	88.6	85.4	84.4	85.1	86.9	87.0	83.8	85.4	87.9
405TTW	86.3	87.6	87.4	84.9	87.1	86.9	83.6	86.7	83.1	85.2	88.0	92.9
FLEET	84.2	84.4	86.9	85.1	84.8	86.8	84.6	85.8	84.4	84.4	84.1	87.1
USAFE												
FY96												
48FW	85.2	87.2	86.2	92.8	69.0	76.7						
52FW	69.5	70.7	79.4	77.7	80.1	77.7						
FLEET	77.0	78.6	82.7	85.2	74.7	77.2						
FY95												
48FW	82.3	80.8	82.9	86.9	83.9	85.9	84.9	93.9	86.4	83.5	84.8	87.6
52FW	74.9	86.9	76.2	84.9	76.1	77.4	77.5	76.4	70.2	75.6	70.9	72.4
FLEET	78.6	84.0	79.5	85.8	79.8	81.5	81.1	84.9	78.1	79.3	77.9	79.4
FY94												
48FW	N/A	N/A	N/A	89.7	74.6	83.2	78.7	78.2	83.1	83.6	78.0	77.6
52FW	N/A	N/A	N/A	N/A	N/A	80.6	76.9	82.6	80.4	78.1	79.7	78.9
FLEET	N/A	N/A	N/A	89.7	74.6	81.7	77.8	80.4	81.7	80.9	78.8	78.2

F15CD (MC)

PACAF												
FY96	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3WG	82.9	85.7	86.5	85.4	86.2	86.2						
18WG	83.0	71.8	77.7	81.7	82.7	84.6						
FLEET	82.9	77.6	81.3	83.1	84.1	85.2						
FY95												
3WG	86.5	80.0	79.8	74.4	79.6	77.3	78.5	81.1	84.1	84.4	80.6	83.9
18WG	82.4	83.7	86.4	84.1	83.6	87.7	86.4	87.5	78.2	83.0	80.9	82.4
FLEET	84.0	82.2	83.7	80.1	82.0	83.6	83.1	84.9	80.5	83.6	80.8	83.0
FY94												
3WG	78.9	83.7	81.9	77.5	74.4	73.8	76.3	74.4	78.5	79.4	79.6	84.5
18WG	80.7	82.1	82.3	86.5	79.3	76.5	74.4	76.4	69.6	75.5	73.2	76.8
FLEET	79.9	82.8	82.1	82.7	77.3	75.4	75.2	75.6	73.2	77.1	75.9	80.0
FY93												
3WG	84.4	86.9	83.2	84.4	80.8	81.9	86.1	85.5	86.6	87.1	81.2	81.5
18WG	86.2	83.1	84.5	84.1	86.7	87.4	87.1	85.8	85.2	85.0	85.2	82.9
FLEET	85.6	84.5	84.0	84.2	84.3	85.1	86.7	85.7	85.8	85.8	83.7	82.3

F-15E (MC)

ACC	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY96												
4FW	74.6	78.4	83.9	83.1	81.9	79.4						
57FW	71.9	69.4	70.5	76.2	66.5	75.5						
366WG	73.8	59.1	70.7	72.0	71.9	80.0						
FLEET	74.2	74.6	80.5	80.6	78.8	79.1						
FY95												
4FW	83.7	82.0	81.8	78.1	83.7	86.0	83.3	82.7	80.9	82.8	84.5	75.2
57FW	88.9	76.1	85.5	81.0	80.3	82.1	80.6	77.7	77.5	72.3	80.4	75.9
366WG	70.5	68.3	77.4	72.2	59.3	80.1	78.8	70.4	69.9	80.7	66.4	68.4
FLEET	82.3	79.5	81.8	77.6	79.3	84.7	82.4	80.2	78.8	81.5	81.2	74.2
FY94												
4FW	87.0	87.0	88.3	86.3	81.7	83.6	83.6	81.4	86.0	86.8	87.4	90.2
57WG	80.5	82.6	71.8	65.0	58.7	68.5	81.9	77.8	77.4	77.7	74.1	75.0
366WG	88.7	78.0	75.7	79.2	72.4	72.1	60.0	72.6	70.8	68.9	76.1	66.5
FLEET	86.6	85.2	84.5	82.7	77.5	80.0	79.8	79.7	82.8	82.8	83.4	84.6
FY93												
4FW	84.6	85.2	87.1	88.4	87.3	89.4	86.9	90.0	87.6	87.1	85.7	88.3
57FW	84.5	77.0	86.1	84.6	84.2	86.7	90.5	94.9	85.6	87.4	85.7	80.7
58FW	83.1	87.2	88.9	87.9	84.1	81.2	77.8	86.6	85.6	N/A	N/A	N/A
366WG	67.3	66.2	70.0	62.1	68.4	65.7	69.0	71.8	72.6	83.0	83.9	81.7
FLEET	83.3	83.9	86.4	86.4	85.2	85.5	83.4	87.7	85.3	86.2	85.5	86.5
FY92												
4FW	88.1	87.5	88.3	86.6	87.9	89.1	88.8	89.3	89.2	86.4	86.6	88.4
57FW	85.8	86.5	79.3	85.3	87.4	87.0	89.9	82.0	88.2	84.3	83.7	83.7
58FW	84.8	85.4	87.5	83.8	83.7	85.7	87.1	86.4	86.0	86.7	88.2	86.3
366WG	N/A	N/A	N/A	41.2	62.9	58.0	50.8	35.2	73.0	67.0	62.8	49.3
FLEET	87.0	86.9	87.3	85.4	86.1	86.6	86.4	85.0	87.4	85.2	85.6	85.3

F-15E (MC)

FY91	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
4FW	84.8	89.6	90.4	80.3	80.5	86.1	90.2	90.2	90.9	89.9	89.2	89.9
57FW	83.3	82.5	92.6	96.7	89.7	81.4	78.7	63.5	81.6	82.6	88.3	87.3
405TTW	79.8	85.0	79.9	83.0	76.3	75.4	80.3	86.8	87.0	87.5	88.7	89.1
FLEET	80.4	84.5	81.8	85.1	78.5	78.4	80.0	83.6	85.9	86.4	88.6	88.7
USAFE												
FY96												
48FW	78.2	82.4	81.8	83.9	78.2	83.1						
FY95												
48FW	81.6	83.0	87.3	89.2	85.6	86.2	85.1	84.0	82.3	84.9	83.7	79.9
FY94												
48FW	76.9	79.2	78.8	84.2	83.4	80.2	80.6	83.2	82.9	83.5	81.7	83.6
PACAF												
FY96												
3WG	77.1	80.0	83.9	86.6	88.1	86.9						
FY95												
3WG	79.0	75.8	70.5	78.8	77.7	83.1	83.3	81.3	78.0	79.4	82.3	80.1
FY94												
3WG	95.2	90.5	84.9	80.1	75.0	78.8	81.6	83.4	74.4	76.0	72.2	79.5
FY93												
3WG	70.6	73.1	81.5	80.1	81.0	80.4	82.1	79.1	78.7	95.3	95.0	83.4

B-1(MC)

[illegible] ACC [illegible]												
FY96	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
7BW	62.7	77.2	82.6	81.6	77.3	80.1						
28BW	66.8	62.8	70.0	68.4	62.9	61.4						
366WG	67.1	66.6	76.5	69.4	69.6	63.8						
FLEET	64.7	70.9	77.1	75.5	72.0	72.1						
FY95												
7BW	54.3	54.0	55.8	60.9	60.1	66.4	66.6	65.3	63.8	69.7	56.6	54.4
28BW	84.3	82.7	84.6	80.9	79.8	76.5	77.9	73.0	73.0	82.4	81.8	81.1
366WG	61.3	64.8	62.3	61.3	63.8	58.0	65.5	56.3	58.1	74.0	58.8	54.7
FLEET	66.4	65.5	66.5	67.7	66.9	68.6	69.9	66.5	65.8	74.3	64.7	62.9
FY94												
7WG	57.5	53.8	57.4	53.9	51.0	65.8	66.9	67.1	64.0	67.0	61.0	55.3
28BW	69.8	60.7	65.9	67.4	67.0	67.7	62.6	67.2	83.7	84.5	84.6	85.8
366WG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	74.0	61.9	52.7	57.4	58.8
384BG	60.7	62.8	45.6	56.1	52.7	56.6	49.3	36.5	58.1	52.6	54.6	43.0
FLEET	64.1	57.4	59.5	57.6	56.2	63.7	58.6	59.4	69.5	68.9	67.7	65.2
FY93												
28BW	48.9	55.2	53.3	47.9	49.7	46.2	46.5	50.8	54.7	62.3	64.8	67.7
96BW	61.4	55.7	54.0	64.6	65.0	61.3	73.5	72.8	60.6	49.3	29.4	48.2
319BW	64.5	57.5	57.9	62.3	57.9	55.4	52.6	62.9	64.8	60.0	58.3	70.6
384BW	52.4	53.3	60.1	67.0	60.9	48.6	51.9	53.6	41.9	52.9	49.9	53.1
FLEET	56.5	55.3	55.7	59.5	58.0	52.9	55.9	56.1	55.1	55.8	50.0	59.4
FY92												
28BW	55.0	60.6	49.9	51.7	57.8	58.5	58.2	53.7	57.1	47.5	51.9	46.9
96BW	62.1	54.7	54.2	53.7	62.1	57.7	64.5	66.9	71.8	36.6	36.6	49.8
319BW	62.1	49.2	52.6	57.3	55.8	58.7	66.6	66.3	63.8	65.3	65.4	62.6
384BW	53.7	47.6	60.4	65.6	61.0	58.0	62.0	59.4	54.5	59.4	52.9	52.4
FLEET	58.1	53.8	53.7	55.9	59.5	58.2	62.5	61.4	62.6	50.2	50.1	52.2

B-1(MC)

FY91	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
28BW	65.6	55.7	51.5	57.2	63.7	57.6	57.4	64.3	60.8	60.3	61.5	53.0
96BW	50.4	53.4	51.4	39.4	40.8	49.9	56.0	51.1	59.1	56.2	49.3	56.1
319BW	56.0	58.3	59.4	43.7	45.7	43.2	54.8	48.3	57.0	62.2	61.9	67.2
384BW	53.8	67.6	67.5	56.5	64.9	58.7	57.1	48.3	N/A	56.7	55.4	46.8
FLEET	57.0	57.6	55.8	48.7	52.6	52.6	56.5	54.0	59.3	58.7	56.6	55.1
ANG												
FY96												
184BW	49.7	47.5	47.2	58.3	64.7	42.4						
FY95												
184BW	59.6	32.1	40.0	40.4	34.2	40.7	56.8	58.2	46.9	41.1	53.5	57.7

B-52H (MC)

ACC	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY96												
2BW	79.8	83.2	79.9	81.5	78.0	84.1						
5BW	82.7	92.6	89.0	90.9	87.1	87.2						
FLEET	80.9	87.1	83.8	85.4	81.9	85.4						
FY95												
2BW	86.8	79.0	88.1	86.2	81.5	82.3	77.4	80.0	78.0	76.4	85.3	74.0
5BW	77.8	78.6	80.1	85.1	87.4	87.6	85.9	85.3	86.1	90.0	85.3	79.6
FLEET	82.7	78.8	83.4	85.7	83.9	84.4	80.7	80.0	81.0	81.5	85.3	76.2
FY94												
2BW	82.1	81.1	72.9	71.9	80.5	70.8	75.5	71.5	77.5	75.9	82.8	89.0
5BW	79.2	80.0	85.1	83.6	72.8	78.2	81.3	88.3	79.6	81.3	86.9	75.0
410BW	89.7	89.5	91.3	86.9	88.8	90.6	89.8	88.7	86.1	87.1	95.0	99.9
416BW	77.4	85.8	70.5	80.4	74.7	82.5	85.2	81.7	80.6	91.0	91.8	93.2
FLEET	82.7	83.9	80.6	80.1	79.5	79.6	82.3	81.3	80.2	81.8	86.9	86.2
FY93												
2BW	69.6	87.2	78.8	84.2	85.1	76.8	79.4	76.2	78.0	77.2	66.5	77.5
5BW	80.4	89.8	82.3	79.5	80.7	85.9	78.7	77.0	82.0	78.7	78.7	82.9
92BW	84.6	88.2	83.0	86.7	81.6	82.7	82.3	78.6	81.5	84.6	88.8	85.3
410BW	80.1	84.7	88.9	85.9	88.8	88.5	85.0	87.9	86.5	90.1	90.2	89.0
416BW	76.4	81.3	79.7	77.7	87.0	82.5	84.2	83.7	84.3	80.4	78.8	82.8
FLEET	77.7	86.7	82.6	83.5	84.7	83.0	81.7	80.2	82.1	82.4	80.6	83.4
FY92												
5BW	84.2	86.2	85.1	83.3	86.3	94.5	91.5	85.3	79.9	89.8	83.6	82.0
7BW	74.7	71.4	82.2	81.0	78.5	71.2	77.8	87.3	90.8	90.4	91.5	88.5
92BW	73.0	71.4	62.9	75.1	80.9	78.4	88.0	88.3	78.4	76.3	79.5	84.6
410BW	83.7	78.1	83.2	84.7	85.1	82.5	84.0	70.3	82.4	84.6	80.7	85.9
416BW	67.9	73.1	72.7	71.7	74.5	67.5	67.9	70.0	76.0	66.3	76.7	70.5
FLEET	76.9	75.8	78.1	79.9	81.6	79.2	82.7	81.1	82.6	83.3	83.4	83.5

B-52H (MC)

FY91	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5BW	79.2	71.9	72.6	75.6	76.7	75.4	71.6	80.7	83.9	83.9	78.3	73.6
7BW	78.0	72.3	75.7	76.1	69.4	71.7	67.5	70.9	74.8	77.8	75.2	78.3
92BW	79.5	74.2	67.1	73.1	60.5	69.5	81.7	80.7	78.5	69.5	72.6	77.0
410BW	84.1	78.0	83.9	80.5	69.4	79.3	80.4	81.1	80.3	82.3	86.8	91.4
416BW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	50.4	57.9	56.6
FLEET	80.0	74.0	74.9	76.3	69.0	73.8	74.7	77.7	78.9	77.9	76.9	77.9
AFRES												
FY96												
917WG	46.7	47.6	55.8	52.3	44.6	63.7						
FY95												
917WG	66.2	85.9	90.0	91.7	72.6	69.6	55.7	65.2	42.9	45.4	57.2	36.9
FY94												
917WG	N/A	N/A	3.6	47.6	88.8	62.5	77.4	66.1	47.2	51.5	54.7	62.4

B52G (MC)

ACC FY93	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
42BW	88.8	88.5	85.9	86.0	89.2	89.2	90.1	89.5	88.4	92.3	89.2	94.8
93BW	64.2	64.5	62.0	74.6	81.5	85.7	83.6	78.9	84.4	93.1	87.4	87.7
366WG	63.7	71.8	72.6	72.6	68.4	78.3	83.6	79.8	80.9	78.7	83.2	78.6
FLEET	73.7	74.8	73.3	78.8	82.0	85.4	86.1	83.2	85.1	89.5	87.1	87.5
FY92												
2BW	78.0	82.2	85.7	85.1	84.2	72.5	85.7	91.3	93.5	92.5	92.0	84.1
42BW	86.4	86.8	79.3	90.7	88.1	91.5	89.3	90.4	92.2	91.0	90.5	89.0
93BW	62.4	52.9	65.7	63.3	66.4	48.5	57.1	64.2	67.9	66.4	61.4	61.5
379BW	86.3	82.8	82.4	82.5	84.3	82.5	87.4	90.3	94.6	93.5	99.4	92.3
366WG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.7	N/A	68.0
FLEET	76.8	75.6	78.4	79.5	79.9	71.4	78.1	83.2	85.9	84.3	84.9	78.7
FY91												
2BW	75.7	74.1	78.1	76.0	72.8	52.5	65.8	77.5	80.0	90.2	80.7	83.6
42BW	80.6	N/A	N/A	N/A	N/A	81.6	88.6	85.8	83.9	90.0	84.4	89.9
93BW	68.7	53.0	61.8	62.3	57.2	40.1	47.0	59.4	53.7	58.2	76.6	58.8
379BW	74.7	79.2	80.0	87.8	79.5	82.4	70.1	69.8	76.3	79.4	83.7	87.2
FLEET	74.0	67.0	72.5	74.1	66.2	58.3	66.0	71.8	71.9	78.0	81.2	78.0

Service Life Expectancy

QUESTION: What is the Service Life Expectancy for the B-1, B-2, B-52?

ANSWER: The service life for each of the three bomber weapons systems is presently projected to the year 2030 and beyond. Service life for large aircraft systems is based more on when these systems become operationally obsolete, or when it becomes economically unfeasible to maintain the airframe. Present airframe maintainability estimates and operational planning support these systems to the above projected service life. The B-1B wing carry-through section will require further engineering and stress load analysis as the weapon system matures. Present design analysis projects some structural overhaul may be necessary in the wing carry-through area near the 2018 year time frame.

B-1 CALCM Modification

QUESTION: How long in depot maintenance does it take to make a B-1 capable of launching a CALCM?

ANSWER: Integration of the Conventional Air-Launched Cruise Missile (CALCM) on the B-1 weapon system is currently restricted by the Strategic Arms Reduction Treaty (START). CALCM and the Air-Launched Cruise Missile (ALCM) are functionally indistinguishable for START purposes, and integration of CALCM would categorize the B-1B as a stand-off platform.

Converting the B-1B for CALCM would, however, take approximately 11.5 to 13.5 days at depot to reconfigure the bomb bay bulkhead and restore the ALCM pylon attachment joints.

QUESTION: How many CALCM's, and how many B-52 sorties were launched during the Gulf War? If the B-1 was modified to carry CALCM's how many sorties would it take to launch a comparable number of CALCM's?

ANSWER: Thirty-five Conventional Air-Launched Cruise Missiles (CALCM) were launched during the Gulf War by seven B-52Gs. Only five to six CALCMs were carried per aircraft, vice 12 external missiles per B-52G, to reduce risk of losing missiles in case of aircraft problems and because of the limited quantities of CALCM.

If the B-1 were modified to carry CALCM, five would be required to launch 35 missiles. Each B-1 would be able to carry eight CALCM internally on a rotary launcher

Like the B-52G, the B-52H can carry 12 CALCM externally, however it has the added capability to carry eight CALCM internally for a total of 20 missiles. This makes the B-52H a superior CALCM platform.

For purposes of the Strategic Arms Reduction Treaty, any aircraft capable of delivering CALCM would be counted as a nuclear Air-Launched Cruise Missile carrier. This makes CALCM integration on B-1s operationally unfeasible. For this reason, as well as its increased carriage capacity, the B-52 is the only bomber platform planned to carry CALCM.

QUESTION: Are there plans to upgrade the B-52 flight simulator to display the same 180 degrees of view as currently available in the B-2 and C-17 simulator? If not, why not? If so, in what fiscal year is it funded?

ANSWER: There are no plans to upgrade the B-52 flight simulator to display 180 degrees of view. The B-52 flight simulator, as currently configured, provides adequate visual stimulus to effectively train aircrews.

B-52 Flight Simulator

QUESTION: How much would it cost by appropriation to provide this valuable training and readiness enhancement?

ANSWER: The visual systems on the B-52 Weapon Systems Trainer are being upgraded at this time. To change the system to a 180° visual segment will require $1.5 million of BP11, Appropriation 3010 in FY97.

Spare B-1B Engines

QUESTION: How many serviceable spare B-1B engines were available by month for the last three years?

ANSWER: The numbers of serviceable spare B-1B engines by month for the last three years are provided in the attached chart. Note that negative numbers represent the shortage of spare engines needed to fill on-wing aircraft requirements.

B-1B SPARE ENGINE LEVELS

B-1B SPARE ENGINES LEVELS	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY93												
SERV				-26	-24	-5	4	7	13	13	10	10
WRE				29	29	29	29	29	29	29	29	29
FY94												
SERV	15	23	26	31	26	21	22	20	18	14	6	5
WRE	29	29	29	29	29	29	20	20	20	20	20	20
FY95												
SERV	-2	-6	-7	-2	7	11	13	15	19	21	20	14
WRE	20	20	20	20	20	20	20	20	20	20	20	20
FY96												
SERV	10	12	14	18	25	22	23					
WRE	20	20	20	20	20	20	20					

SERV: Serviceable Spare Engines

WRE: War Reserve Engines

B-1B

QUESTION: How much is it costing to bring the B-1B to the same conventional capability currently available by the B-52?

ANSWER: Planned conventional upgrades to the B-1 will give it far greater capability than is currently available in the B-52. Conventional upgrades to the B-1 will cost about $2.4 billion and will focus on future precision and standoff weapons integration and electronic countermeasure (ECM) enhancements.

The Air Force has already made an investment in the B-52 to achieve the aircraft's current conventional capability. An additional $289 million in funding is planned to give the B-52 future precision and standoff weapons and ECM improvements that it will need to be effective in future combat. Both the B-1 and B-52 are planned to have the same precision and standoff weapons carriage capabilities (with the exception that the B-52 will carry AGM-142 and Conventional Air-Launched Cruise Missiles) in the future.

ECM improvements to the B-1 and B-52 will give the two aircraft slightly different roles. The B-1 will employ less expensive, direct attack weapons in both low and medium threat environments. The B-52, however, will likely only deliver direct attack weapons in low threat environments. Both bombers will employ standoff weapons outside of lethal threat areas.

B-52 Squadron

QUESTION: If reserve units should mirror active component units, why does the Reserve B-52 squadron have a PAA of 6 aircraft?

ANSWER: The Air Force Reserve B-52 force structure is eight Primary Aircraft Authorized (PAA) and one Back-up Aircraft Inventory. The planned B-52 force structure calls for 71 Total Active Inventory (TAI) and 56 PAA composed of four Active Duty squadrons of 12 PAA and one Reserve squadron of eight PAA. The force structure of 56 PAA/71 TAI is driven by many factors, including operational requirements, treaty limitations, and fiscal constraints. Air Force bomber force structure plans call for both the Guard and Reserve bomber squadrons to be comprised of eight PAA.

QUESTION: How much will it cost to bring the squadron up to a PAA of 12 and a TAI of 15? Please provide the answer broken down by appropriation.

ANSWER: We estimate the following costs associated with bringing the B-52 squadron up to a Primary Aircraft Authorized (PAA) of 12 and a Total Active Inventory (TAI) of 15:

Operations & Maintenance [Flying Hours/Depot Maintenance/Civilian Pay]	$24.0M
Reserve Personnel [Manpower]	$2.1M
Sub-total [Annual Operating Costs Per Year]	$26.1M
Aircraft Modifications For 6 Additional Aircraft	$19.2M
TOTAL	$45.3M

Refueling

QUESTION: How many refuelings would it take for a B-1 to launch from DYESS AFB to Baghdad and return carrying a load of 45 Mk-82 bombs? Same answer for a B-52?

ANSWER: Both the B-1 and B-52 would require at least four air refuelings for a continental US (CONUS)-to-CONUS mission striking Baghdad. The B-1s maximum carriage capacity of 84 internal Mk-82s would not be fully utilized carrying only 45 weapons. Similarly, the B-52s maximum carriage capacity of 51 Mk-82s, 27 internally and 24 externally, would not be fully utilized carrying only 45 weapons.

F-22 Squadrons

QUESTION: How many F-22 squadrons are envisioned? Where do you plan to base these squadrons?

ANSWER: The Air Force plans to bed down the F-22 in 16 to 17 combat-coded (CC) squadrons, based upon the FY97 President's Budget force structure. Although the first training site and three test sites have been released (Tyndall, Eglin, Edwards and Nellis) the location of the CC squadrons is yet to be determined. The Air Staff will continue to work closely with Air Combat Command to ensure that the optimum beddown is developed and approved in time to accommodate long-lead requirements for beddown of the first CC unit in FY04.

QUESTION: How many JSTAR squadrons do you plan? Where will they be based?

ANSWER: Planned JSTARS beddown includes three operational squadrons and one training squadron under the 19th Air Control Wing at Robins AFB, Georgia. The operational squadrons will be designated the 12th, 16th, and 17th Airborne Command and Control Squadrons and will have five E-8C aircraft each. The training squadron will be designated the 93rd Training Squadron and will have two E-8C aircraft assigned.

JDAMs

QUESTION: How many JDAMs will a B-1 carry? Is that internal or external? If external, how will that degrade performance, speed?

ANSWER: The B-1 will carry 24 Joint Direct Attack Munitions internally, eight in each of three weapons bays. B-1s carry all weapons internally.

Industrial Base

QUESTION: Does the same industrial base that supports the B-2 support the F-22?

ANSWER: Yes. The United States maintains an extremely robust aviation industrial base, not just an F-22 or a B-2 specific industrial base. This base has many components, to include: key technologies, research and development competencies, manufacturing skills and design experience. Many of these components are used jointly for military and civilian uses. Other components that focus on military unique technologies, such as stealth, are used in a variety of Department of Defense programs. So although the US does not maintain a specific B-2 industrial base, many of the enabling technologies and manufacturing and design skills used to produce the B-2 are maintained and enhanced through other programs such as the F-22 and Joint Strike Fighter.

Conventional Ordnance Upgrade

QUESTION: One of the highest priorities for the Air Force is the Conventional Ordnance Upgrade, is that basically allowing the B-1 and B-2 capability to deliver the same ordnance the B-52 can deliver today?

ANSWER: No, the preponderance of conventional weapons carried by the B-52 today are free fall, unguided bombs, plus Conventional Air Launched Cruise Missile and the only current bomber precision munition, the AGM-142 Raptor. Programmed conventional weapons integration focuses on increased accuracy and standoff for all three bombers--B-1s, B-2s and B-52s--to enable them to carry the Joint Direct Attack Munition and Joint Air-to-Surface Standoff Missile. In addition, the Wind Corrected Munitions Dispenser and the Joint Standoff Weapon are being integrated on both the B-1 and B-52. The B-52 has a current capability to deliver Cluster Bomb Unit (CBU)-87/89/97s. The B-1 will attain the capability to deliver CBUs in July of this year, while the B-2 attains this capability in FY97.

Initial Operational Capability for B-2

QUESTION: What is the IOC for B-2 Block 20? Block 30?

ANSWER: Initial Operational Capability (IOC) is established for the entire B-2 weapon system and not specifically for Block 20 or 30. B-2 IOC is the second quarter of FY97. IOC is defined as three Block 20 aircraft with the associated support equipment and qualified personnel. All B-2s will be upgraded to Block 30 by the fourth quarter of FY00.

F-117 Battle Damage Repair

QUESTION: The F-117 planned capability is outstanding. I am concerned about the ability to repair battle damage in a forward area. Explain what you are doing to alleviate this concern.

ANSWER: The 652nd Combat Logistics Support Squadron (CLSS) is tasked to provide Aircraft Battle Damage Repair (ABDR) support to the 49th Fighter Wing (49FW) for any future deployments/contingencies. This unit has received specialized training in advanced composite repair techniques oriented to the F-117. The 652 CLSS presently participates in local contingency exercises with the 49FW under this tasking. To aid the 652 CLSS, an Air Force low observable engineer is being assigned at the 49FW from Sacramento Air Logistics Center and will deploy with the wing during contingency operations.

Future efforts include procurement of an ABDR Expert System and a Diagnostic Imaging Radar (DIR) system. The ABDR Expert System will provide ABDR personnel with updated engineering assessment logic and tools for accurate and quick damage assessments through an interactive computer system. Benefits of the system are timely ABDR assessments with repair procedures that aid in reducing aircraft down time and increasing aircraft availability. The DIR system is a stepped-pulse frequency synthetic aperture radar for diagnostic imaging and low observable verification of F-117 aircraft. The first system was delivered to the Air Force in 1993 and is currently being used by depot personnel at Palmdale, CA. Headquarters Air Combat Command has taken steps to acquire three of these units to support the 49FW. First delivery to the 49FW is March 1997. The DIR system will be invaluable in determining the stealth capabilities of F-117 aircraft and if battle damage repairs have been appropriately accomplished.

Direct DBOF funded aircraft

QUESTION: Do you have any aircraft type/model/series that are funded by both direct dollars and DBOF dollars? (i.e., C-20's for AMC as funded by DBOF, other C-20s funded by direct dollars). If so, please provide the OP-20 costing for those aircraft.

ANSWER: The Active Air Force aircraft which fall into this category and their related FY97 OP-20 costing (direct) are:

C-5A	$17,887K
C-17A	$12,107K
C-141B	$17,806K
C-130E	$66,102K
C-130H	$24,765K
C-130J	$942K
KC-135R	$155,215K
KC-135T	$29,831K
KC-10A	$71,901K

The AF Reserve aircraft and OP-20 costs are:

C-5A	$37,515K
C-141B	$25,802K
KC-135R	$26,176K

The Air National Guard aircraft and OP-20 costs are:

C-5A	$15,270K
C-141B	$10,569K
KC-135E	$59,683K
KC-135R	$55,066K
C-130E	$28,894K
C-130H	$44,314K

Control of Logistic Aircraft

QUESTION: If AMC/TRANSCOM gains control of all logistic aircraft, is it a correct assessment that State Governors will have to ask permission to use Air Guard aircraft to fly disaster relief missions? And pay the DBOF rate, which includes overhead?

ANSWER: It is assumed the term "logistic" aircraft refers to Operational Support Airlift (OSA) aircraft. A plan was recently approved by the Secretary of Defense which establishes a central joint scheduling center within US Transportation Command (USTRANSCOM) for scheduling all Department of Defense (DOD) continental US-based OSA aircraft. Under this plan the Services and their Guard and Reserve components maintain ownership of their respective OSA aircraft and USTRANSCOM schedules them through the Joint Operational Support Airlift Center. The aircraft are not in the Defense Base Operating Fund (DBOF) system and are not subject to DBOF rates. All valid airlift requests will be prioritized in accordance with DOD Directive 4500.43 and then scheduled. Validated disaster relief missions would receive a Priority 1 (out of 3) and Urgency 2 (out of 6) under this directive resulting in almost certain mission fulfillment.

C-17 Fly-Away Costs

QUESTION: In an earlier presentation on the C-17 multi year procurement the before Fly-Away-Cost was $183 million and the after Fly-Away-Cost was $173 million. Is it true that the after Fly-Away-Cost is really $169.3 million due to the up-front $300 million economic order quantity credit?

ANSWER: The average unit flyaway price for 80 C-17s under the current multi-year procurement is $173 million (FY96$). It includes the $300 million that will be obligated in FY96 for Economic Order Quantity for the 80 aircraft minus the $300 million credit received from FY97 through FY03.

B-52 Inventory

QUESTION: How long do you see the B-52 staying in the inventory? And in what numbers?

ANSWER: The B-52 airframe is certified through 2030. The Air Force is retaining 71 Total Active Inventory to support 56 Primary Aircraft Inventory through the B-52's life cycle.

QUESTION: Your prepared statement says that "conventional upgrades to our bomber force combined with the acquisition of a family of smart munitions, particularly the Joint Direct Attack Munition (JDAM), Joint Stand-Off Weapon (JSOW), and Joint Air-to-Surface Standoff Missile (JASSM) will enable our forces to attack a variety of targets anywhere in the world, day or night, in good weather or bad, within hours of tasking." When will these weapons be in the inventory?

ANSWER:

Inventory Entry Dates

Joint Direct Attack Munition (JDAM): FY98 on F/A-18, B-52

Joint Stand-Off Weapon (JSOW): FY99 on F-16

Joint Air-to-Surface Standoff Missile (JASSM): FY01 on B-52

Operational Availability on Bomber Force

	B-52	B-1	B-2
JDAM	FY 98	FY 00	FY 98
JSOW	FY 00	FY 02	Not Funded
JASSM	FY 01	FY 02	FY 02

QUESTION: Given your answer, isn't it premature to drawdown the B-52 inventory until we have sufficient smart munitions available?

ANSWER: No, the drawdown of the B-52 force, as programmed, is as much an issue for Strategic Arms Reduction Treaty (START) II as it is for fiscal reasons. Entrance into force for START II changes the accountability rules for nuclear bombers. Accounting goes from one per bomber to a full accounting of their individual weapons carriage capability. The Heavy Bomber Study and the Nuclear Posture Review show that a force of 66 B-52H aircraft fulfills our commitments in the nuclear and conventional arenas. The Air Force is increasing the B-52H force structure by five aircraft to provide sufficient attrition reserve aircraft to support the plane through the year 2030. The B-52H's current Conventional Air Launched Cruise Missile and the AGM-142 Raptor capabilities provide standoff and precision capability through the arrival of the smart weapons.

Ground-based Air Defense

QUESTION: What percentage of Iraqi, North Korean SAM and AA have an effective range less than 30,000'? 50,000'?

ANSWER: Iraqi Surface-to-Air Missiles (SAM) and Anti-Aircraft Artillery (AAA):

[Deleted.]

North Korean SAMs and AAA:

[Deleted.]

Medical Field Personnel

QUESTION: What are your intentions regarding the drawdown of medical field personnel?

ANSWER: The Air Force Medical Service (AFMS) has already taken multiple actions to reduce its size including downsizing two hospitals to clinics, increasing reliance on civilian emergency response capability at 20 locations, closing five obstetrical units, closing two special care units, and reducing our operating beds by almost half.

The AFMS is responding to several outside reviews including:

1) In March 1995, Health Affairs directed the development of a unified Tri-Service Department of Defense (OSD) Medical Sizing Model to ensure consistency among the Services modeling efforts to identify medical readiness baselines.

2) In August 1995, Program Decision Memorandum #1 directed an update to the 733 Study. This study report will: a) Establish the minimum baseline requirement for active duty medical manpower necessary to meet wartime and day-to-day operational missions; b) Identify the peacetime infrastructure necessary to sustain the wartime requirements (i.e., Overseas, medically underserved locations, and rotation and training base); c) Determine the number and size of CONUS medical facilities; and d) Analyze DOD's TRICARE managed care program in terms of potential to reduce overall defense health program costs.

3) OSD Program Analysis & Evaluation (PA&E) is leading the Section 733 Update Review using the DOD Sizing Model as the core for this review. Application of the DOD Sizing Model, as redefined by OSD(PA&E), will result in a new Total Operational Readiness Requirement (TORR).

4) The summer review cycle will also require the Services to identify those manpower requirements, above the TORR, that should be retained where the military manpower is more economical. The new AFMS size, then, will be identified by adding the TORR and the economically justified military manpower positions.

The AFMS recognizes the need to downsize and is initiating many actions including utilization management, health prevention, siting readiness requirements where peacetime return on investment is the greatest and downsizing facilities without readiness requirements.

The final reduction outcome will not be known until both the 733 Study Update and the Make-Buy Reviews are completed, validated by Air Force line and Secretariat leadership, and multiple DOD agencies. Manpower reductions will require more than one Future Year Defense Program period to accomplish without overall increased costs to the Service for voluntary separation incentive programs.

QUESTION: What is the Air Force opinion on Medicare Subvention?

ANSWER: 1. The Air Force fully supports TRICARE Subvention.

2. The TRICARE program is designed to improve beneficiary access to care, assure affordable, high quality care, and contain overall health care costs. TRICARE is most beneficial to our active duty members, their families, and our under 65 retirees and their families. However, because retirees and their dependents lose their CHAMPUS eligibility when they gain Medicare coverage, this group of beneficiaries does not have the ability to enroll in TRICARE. While they retain their right to space-available care in a military hospital, the reality is that with a smaller Defense establishment and the expected high demand for TRICARE by those who can enroll, the Medicare-eligible population of military beneficiaries will find it increasingly difficult to obtain care in our facilities.

3. The Air Force and all the Services agree that we must eliminate this gap in health care coverage for the men and women who served their country long and faithfully. Medicare Subvention is one of our top legislative priorities. Medicare reimbursement is essential to create a seamless health care system and allow Medicare-eligible retirees to truly enroll in TRICARE Prime. We wholeheartedly support the enactment of Medicare Subvention and feel it is in the best interest of our entire population.

Late-Payment Interest Penalties

QUESTION: List by appropriation the amount of late payment interest penalties the Air Force has paid for the last five years. Annotate at what point DFAS took over paying your bills?

ANSWER: Defense Finance and Accounting Service (DFAS)-Denver gathers and reports the late-payment interest paid on Air Force contracts by local DFAS offices, DFAS Operating Locations, and Air Force Accounting and Finance Offices located overseas. DFAS-Denver does not maintain late-payment interest penalty records by appropriation. DFAS can obtain this information, but at considerable expense and with approximately six weeks of effort. The late payment interest penalties reported by DFAS-Denver for the past five fiscal years are listed below:

FISCAL YEAR	TOTAL INTEREST PAID (in millions)
1991	$1.462
1992	1.066
1993	1.118
1994	2.019
1995	3.460
1996 (half-year)	1.855

DFAS took over the responsibility of paying Air Force bills at US locations during FY93 and FY94.

Reserve Personnel

QUESTION: Do you have any Reserve personnel who are reimbursed from a DBOF account? If so, what function are they performing?

ANSWER: No. The Reserve Personnel Air Force appropriation is not reimbursed from a Defense Business Operating Fund account.

Congressional Travel Cost

QUESTION: What costs are included in a cost per hour for Congressional Travel? Use either a C-20 or C-21 as an example.

ANSWER: The FY96 DOD user rate/cost per hour for Congressional Travel using a C-21A includes aviation fuel ($158 per hour), contract logistics support for maintenance ($571 per hour), and per diem ($3 per hour). Total FY96 C-21a DOD user cost is $732 per flying hour.

Congressional Travel

QUESTION: How many hours of maintenance are required for one hour of flying for a C-137?

ANSWER: The C-137B requires 17.8 hours of blue-suit/organic maintenance for one flying hour while the C-137C requires 12.7 hours. These aircraft were built during 1958-1973 and are maintained to meet FAA certification. The information provided does not include depot maintenance.

Follow-on for C-137

QUESTION: Is there a follow on aircraft planned for the C-137? When do you intend to procure them?

ANSWER: Yes, there is a follow-on to the C-137. The Air Force intends to replace existing C-137 aircraft with four large-volume and two small-volume transport aircraft.

Using a lease-to-buy acquisition strategy, the Air Force expects to award a contract for the four large-volume transport aircraft this summer. All of these aircraft will be available for Air Force use in early FY98 with the lease-to-buy agreement. The first of these aircraft will be purchased in FY98, the second in FY99, and the remaining two in FY00.

The Air Force expects to award a contract for the two small-volume aircraft in late FY96 or early FY97. The Air Force expects delivery of both these aircraft in mid FY98.

C-20s

QUESTION: Do you have any C-20s that are not being flown due to insufficient funding?

ANSWER: No. The Air Force possesses nine C-20s (two stationed at Ramstein Air Base, GE, and seven stationed at Andrews AFB, MD) and all are fully funded.

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

Russian Fifth GenerationFighter

QUESTION: Do you agree with the Navy's assessment that Russia's fifth generation fighter will not enter service until the year 2015?

ANSWER: Yes. An independent Intelligence Community assessment determined that the earliest completion of development for the Russian fifth-generation fighter is 2010-2015 with initial operational capability (IOC) thereafter. Reportedly, there are two prototypes designated as the MiG-1.42 and Sukhoi S-32. They will compete against each other with the winner serving as basis for the fifth-generation fighter.

F-22

QUESTION: If the Navy is satisfied with the ability of the evolutionary F/A-18E/F to meet the threat past the year 2015, why is it so important to start procuring the revolutionary F-22 in 1998?

ANSWER: I cannot comment on how satisfied the Navy is with the F/A-18E/F because that is not my area of expertise. However, the Navy plans to use the F/A-18E/F for significantly different missions than the Air Force intends with the F-22.

The Air Force is responsible for theater air dominance. This requires us to operate our aircraft for extended periods over our opponents' airspace. Dominance will allow all our soldiers, sailors, marines, and airmen the freedom to perform their operations unencumbered by enemy air attacks, and denies the opponent freedom of maneuver.

Theater air dominance requires range, speed, maneuverability, and survivability inside a hostile integrated air defense system. While the F-15 has the required range and maneuverability, it is not survivable in a high threat environment, and cannot operate outnumbered against equal or near equal opponents, and win.

The F-22's revolutionary improvements guarantee air superiority against current and future threats. Maneuverable stealth, supercruise, and integrated avionics will give America the most advanced air superiority weapon systems for decades to come.

The F-15 cannot guarantee air superiority as the threat progresses. The F-15 is at rough parity with three current fighters (MiG-29, Su-27, Mirage 2000). Three fighters currently operational or in development equal or exceed F-15 capabilities (Su-35, Eurofighter 2000, Rafael).

We must replace our F-15s as they reach the end of their useful service life in 2008. We do not plan to reach initial operational capability with the F-22 until 2005 and we won't have Desert Storm equivalent capability until 2009. Further delays in this program put our ability to conduct the air dominance mission at risk.

Overall Combat Effectiveness

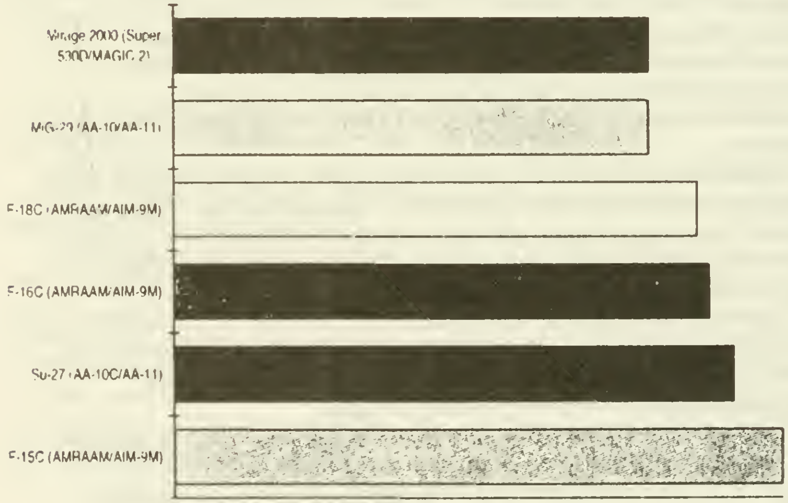
QUESTION: Attached is a copy of the unclassified charts prepared by the Office of Naval Intelligence that compares the overall combat effectiveness of the F/A-18E/F and its competition between now and the year 2015. Using the same methodology, please provide me similar charts that include the F-15E and the F-22.

ANSWER: The Air Force has conducted a similar analysis with different results. We used an objective analytical approach to assess overall combat effectiveness. We found several aircraft reach parity with the F-15 and F-18E/F in the 2005 timeframe and will exceed their capability soon after (unclassified charts attached). Note that the performance of the F-15E is equivalent to the F-15C.

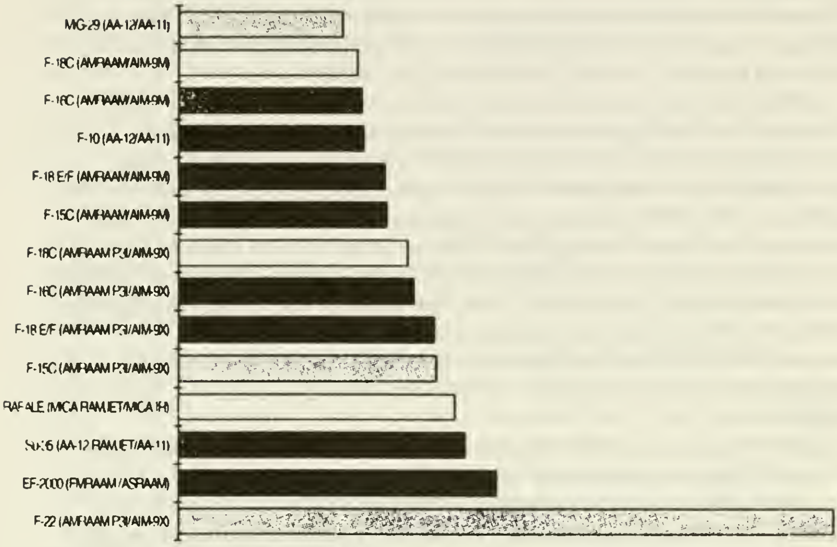
We are prepared to brief you in a classified session with detailed comparison of the F-15 and F-22 with the aircraft you requested.

OVERALL COMBAT EFFECTIVENESS

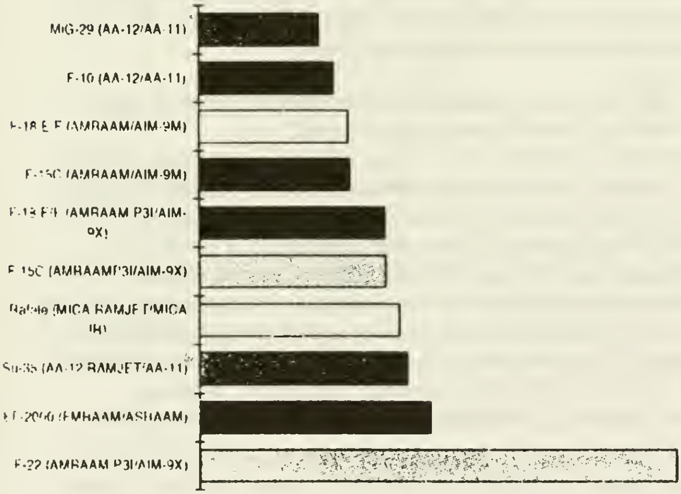
- 1995 -



OVERALL COMBAT EFFECTIVENESS
- 2005 -



OVERALL COMBAT EFFECTIVENESS
- 2015 -



JAST/JSF

QUESTION: I understand the Department has set a target of $30 million per copy for the JAST/JSF. That comes out to about $85 billion for a fleet of 2,800 fighters, plus development costs. Recent articles in the press, however, have estimated the total cost of the JAST/JSF program at anywhere from $350 billion to $1 trillion. How realistic is the plan to acquire the JAST for $30 million each?

ANSWER: Based on the results of the Joint Strike Fighter (JSF) program's Concept Exploration and Concept Development Phases, government and contractor analyses indicate the flyaway cost goals outlined in the Services' Joint Initial Requirements Document (JIRD) are achievable. The JIRD states unit recurring flyaway cost goals (FY94$) as follows: Air Force, $28 million; Marine Corps, $30-35 million; and Navy, $31-38 million. Since approximately two-thirds of the production aircraft are planned for the Air Force, the average unit recurring flyaway cost for the total program is approximately $30 million. The assumptions behind the estimates reported in the media, including foreign military sales, support and inflation assumptions, were not detailed.

The "family of aircraft" concept allows a high level of commonality while satisfying unique Service needs. The program's Concept Exploration Phase results underscored the possibility and benefit of commonality as a viable means for achieving significant savings in the next generation strike aircraft. Concept Development Phase efforts have ratified the conclusion of the program's competing weapon system contractors that a family of aircraft can meet tri-Service needs, with overall significant Life Cycle Cost savings. The degree of commonality varies with individual contractor designs. This approach brings with it the cost benefits of a common depot, commonly supported logistics trail, and increased joint Service interoperability. This will allow the Services to procure the best strike aircraft at the lowest cost.

QUESTION: What is the estimated total acquisition cost of 2,800 JAST fighters, including research and development?

ANSWER: The FY97 President's Budget reflects a total cost of $3.5 billion (then year dollars), to include the $200 million of United Kingdom funding, for the pre-Engineering and Manufacturing Development (EMD) phase of the Joint Strike Fighter (JSF) program. The JSF program office estimate for EMD is $21 billion (then year dollars).

Numerous factors contribute to the total acquisition cost of an aircraft program, such as support and training equipment, publications and factory training. Total procurement estimates will not be available until Milestone II in FY01, when the winning contractor's weapon system concept and approach for production of three variants are better defined.

F-22s and Joint Strike Fighters (JSFs)

QUESTION: According to the March 1996 Annual Report to the President and Congress (page D-2), the Air Force has a total primary mission aircraft inventory (PMAI) of 1440 attack and fighter aircraft. I understand the Air Force plans to procure a total of about 2500 F-22s and Joint Strike Fighters. Is this a one-for-one replacement when one factors in attrition and spares?

ANSWER: The Air Force considers the F-22 and Joint Strike Fighter (JSF) programs provide a one for one replacement for the F-15A-D, F-16, and A-10 portion of the 1440 primary mission aircraft inventory (PMAI) requirement, plus the continental US Air Defense Force (ADF) and required training and test aircraft, spares, and attrition reserve. The Air Force requires 1590 PMAI fighter and attack aircraft to support the two Major Regional Conflict (MRC) strategy (1440 PMAI) plus the ADF (150 PMAI F-15s and F-16s). The two MRC requirement for 1440 PMAI includes F-15A-D, F-16, A-10, F-117 and F-15E. The F-22 program does not include replacement for the F-15E and F-117. The F-15A-D, F-16, and A-10 portion of the two MRC plus ADF requirements is 1422 PMAI aircraft. These aircraft are supported by approximately 549 training, test, and backup or depot spare aircraft. All except 60 ADF F-16 aircraft plus their associated test, training, backup aircraft are scheduled for replacement in our recapitalization plan. Additionally, approximately 600 aircraft must be procured to replace projected F-22 and JSF attrition losses over their 30 year service life. These requirements are constantly reassessed based on fiscal realities which may change as a result of future conditions.

F-22 and JSF Requirements

F-15A-D, F-16, A-10 PMAI	1422
Training, Test, Backup	549
Attrition Requirement	~600
Less ADF not replaced	-83
Total Requirement	~2488

QUESTION: How did you determine the right number of F-22s and JSFs the Air Force needs to buy?

ANSWER: The Air Force plans to buy enough F-22s and Joint Strike Fighters to support the national security strategy, as well as peacetime operations other than war. These aircraft will replace the Air Force's aging fighter fleet, and will include combat coded, training, test, and depot maintenance aircraft and attrition reserve aircraft.

Milstar

QUESTION: Can you tell me anything about the "unexpected outages" that have occurred with the two Milstar satellites that are now in orbit?

ANSWER: The first Milstar satellite was launched February 1994 and turned over to the user November 1994. The second Milstar satellite was launched November 1995. This was our first opportunity to conduct developmental test and evaluation of the multi-satellite Milstar constellation, identify faults that could create outages, and implement solutions prior to turning over the system to the users. During this developmental test period, two communication outages occurred on Dec. 16 and Dec. 22, 1995. These outages were determined to be caused by software discrepancies and were resolved with software modifications to the satellites and ground control equipment. The second Milstar satellite has successfully completed its developmental tests and was turned over to the operational users March 22, 1996, for initial operational testing.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

Flight Data Recorder

QUESTION: I am saddened by the loss of 35 lives, including Commerce Secretary Brown, in the Air Force plane crash in Croatia. Moreover, I was surprised and dismayed by the reports that the plane they were on lacked a flight data recorder, especially since it was a non-combat plane that regularly carried passengers. These data recorders are not only useful for determining the probable cause of a specific crash, they are critical for determining procedures for avoiding similar crashes in military and civilian aircraft in the future. Correcting this defect is high on my priority list. Toward that end, I have submitted a bill that would require all non-combat aircraft to have flight data recorders. How many DoD non-combat aircraft lack flight data recorders?

ANSWER: Let me answer the question in terms of "passenger-capable" aircraft rather than non-combat aircraft. The reason is that many of our passenger carrying aircraft have a combat or combat support mission. 811 Air Force passenger carrying aircraft are not equipped with flight data recorders. These aircraft include the KC/C-135, T-43, C-22, C-12, H-1, and H-60. As you know, on April 26, 1996, the Secretary of Defense directed the Services to install Global Positioning System "as a matter of highest priority" for flight safety on all military passenger aircraft. "As the next priority, you should install flight data recorders on your fixed-wing, commercial-derivative aircraft. Finally, you should consider the installation of flight data recorders on your other passenger aircraft, including troop-carrier and rotary wing aircraft." We are aggressively working to fulfill the Secretary's mandate.

QUESTION: To what extent do flight data recorders used by the DoD meet the requirements for civilian aircraft?

ANSWER: Civilian aircraft Flight Data Recorder (FDR) requirements are given in the Federal Aviation Regulations (FAR); Part 121 for large commercial aircraft and Part 135 for commuter aircraft. The requirements for individual aircraft are dependent upon their date of "type certification" (i.e., initial approval by the Federal Aviation Administration) and the date the FDR was installed. Over time, FAR requirements have become more stringent: first incrementally requiring more data to be recorded; then, progressively evolving from metal foil to magnetic tape to digital recording technology. Both magnetic tape and digital recorders may still be used today while those using metal foil are no longer authorized. Because Air Force aircraft are "public use aircraft," we do not seek nor maintain a "type certification" on many aircraft. This sometimes makes it difficult to determine compliance with the FAR. However, we believe our FDRs meet the intent of the FAR with the exception of C-22 and TC/EC-18 aircraft which still have metal foil recorders.

QUESTION: How much will it cost to add recorders meeting commercial requirements to all non-combat aircraft?

ANSWER: We did not cost flight data recorders alone since aircraft that lack flight data recorders also lack cockpit voice recorders. To install a combined flight data recorder/cockpit voice recorder on the 811 passenger carrying aircraft that lack this capability will cost $126 million. The aircraft requiring retrofit are the: KC/C-135, T-43, C-22, C-12, H-1, and H-60.

Inventory Management

QUESTION: I am dedicated to reducing wasteful spending in all federal agencies, including the Department of Defense. Several GAO reports have indicated that there is a serious problem with inventory management in the Department of Defense. There are 20-year and even 100-year supplies of some items. The cost of storing overstocked items ranges from $100 million to $1 billion per year. What has the Air Force done to address this issue?

ANSWER: The Department of Defense Strategic Logistics Plan directs the Services to establish Inventory Reduction Plans, which include inventory reduction goals. The Air Force has implemented an aggressive inventory reduction program in order to meet these goals. Between FY91 and FY95, the Air Force disposed of $28.4 billion of inventory. In FY95 alone, we disposed of over $5 billion in assets. And comparing the first three months of FY96 with the first three months of FY95, we are currently $140 million higher in FY96 disposals.

The Air Force has changed policies to promote inventory reduction. For example, Air Force reparable item retention period has been reduced from a period of 13.5 years to 8 years. This policy change will cause approximately $2 to $3 billion in stock to migrate to disposal. Our Lean Logistics program is re-engineering transportation and maintenance processes to reduce pipeline time over the next three years. This too will drive additional stock to disposal. It is not Air Force policy to have 20 to 100 years of stock on hand. The Air Force is taking the necessary action to bring all stocks in line with Air Force policy.

Contract Management

QUESTION: The GAO has also reported that the Department of Defense has problems managing its accounts.. For instance, contractor overpayments and underpayments waste millions of taxpayer dollars each year. What has the Air Force done to improve contract management? How is the Air Force applying the best practices of industry?

ANSWER: The Air Force, the Defense Finance and Accounting Service (DFAS), and the Defense Contract Management Command (DCMC) are working closely together to reduce contractor overpayments and underpayments. Based on DFAS data, the value of contractor-identified overpayments by the DFAS-Columbus Center, since 1994, has decreased 66 percent and as of March 1996 represented 1.1 percent of dollars disbursed. The value of Air Force problem disbursements has decreased 41 percent since 1994. In addition, DFAS reports that the percentage of overaged payments (underpayments) within the direct control of DFAS-Columbus fell from eight percent in July 1995 to 1.9 percent in March 1996.

Since July 1995, DFAS and the Air Force have worked together to prevalidate all payments over $5 million, ensuring funds availability directly from the accounts maintained by the funding stations. This has resulted in more accurate payments.

As previously noted by the General Accounting Office, reconciling contract funding and payments significantly contributes to more accurate accounting and payments. Between late 1994 and January 1996, DFAS reports that the backlog of contracts requiring reconciliation has decreased by 75 percent.

In July 1995 the Air Force implemented Department of Defense (DOD) direction to more clearly identify accounting data in contracts. This change stemmed from a recommendation developed by the Air Force Materiel Command's Interagency Closeout Team. The result has been simplified billing instructions and more accurate payments.

The best practices of private industry are also being applied to long-term solutions. The Air Force, in concert with DFAS, is developing information technology-based capabilities which rely heavily on single-source entry of contract, financial, and payment data. Eliminating repetitive, manual input of data and payment processes will significantly improve the accuracy and timeliness of contractor payments.

The Air Force will continue its active involvement and strong support for DOD's efforts to streamline and improve financial and procurement processes.

SUBCOMMITTEE RECESS

Senator STEVENS. I was tempted to ask you a little bit about the Under Secretary's comments about Members of Congress, but I think I will save that for his appearance.

Secretary WIDNALL. I must have missed that.

Senator STEVENS. You can tell him that he had better wear his armor, OK.

Thank you very much. He is the Deputy Secretary, not the Under Secretary—the Deputy Secretary.

Secretary WIDNALL. Oh.

Senator STEVENS. Thank you very much.

[Whereupon, at 12:13 p.m., Wednesday, April 17, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 24.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, APRIL 24, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:15 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, McConnell, Shelby, Inouye, Johnston, and Bumpers.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

STATEMENT OF HON. TOGO D. WEST, JR., SECRETARY OF THE ARMY

ACCOMPANIED BY GEN. DENNIS J. REIMER, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Secretary West, let me welcome you back before our subcommittee. We are always delighted to have you here and I extend greetings to General Reimer. This is your first appearance here as Chief of Staff of the Army.

General Reimer, on behalf of our Double Junction, the Fairbanks communities publicly thanks you again for your recent trip to Alaska. It was a great success, and you and your colleagues are always welcome, particularly in the interior of Alaska.

Your selection of Ken Simpson as our new Army commander returned an old friend to our State. He had served there before. He and Susan are very, very reestablished as Alaskans again. So I am delighted to thank you for what you've done in assuring us that we have a very high quality commander of the Army in Alaska.

We have reviewed your prepared statement and I want you to take your time today, both of you, to decide how you want to present your statements. We will put them in full in the record.

I do hope that you will both address one of the things that is disturbing us, and that is the Army's global role, the increasing requirement to think globally as far as the Army is concerned, now, in view of the cutbacks that we've faced and the forward basing concepts in the Pacific and the downgraded deployment in Japan.

I think this committee, in particular, needs to know and understand the differences in the role of deployments now as far as affecting the forces that are stationed here in Conus and those that may be stationed abroad permanently or temporarily.

We are committed to help you maintain your end strength at the highest level that you can clear through the process of the Department and the OMB, and I know that you both have worked very hard to prepare this budget for us today. So my comments to you are that I am not sure about brother Johnston, but we here are two of those old soldiers who have not yet faded away, sitting here before you. So we are happy to be with you today and to have a chance to listen to your plans for the future.

Senator Inouye.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much, Mr. Chairman. I am pleased to join you in welcoming Secretary West and General Reimer.

Mr. Secretary, I am certain you know that many of our colleagues have expressed great concern about the health of the Army. Some say that your modernization funding is inadequate. Others say that the Army's infrastructure is bloated. There are rumors that you are considering additional force structure cuts to pay for modernization programs. All of these things concern us, naturally.

Like many, I am concerned about quality of life programs, like housing and medical care, and I hope that these are not sacrificed in the name of modernization.

So I look forward to listening to your testimony this morning and on the status of the Army.

Thank you very much.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Johnston.

STATEMENT OF HON. J. BENNETT JOHNSTON

Senator JOHNSTON. Yes, Mr. Chairman. I would like also to welcome Togo West and General Reimer this morning. Let me state that I share your concern about the underfunding of the Army, about the inability to have the resources to take care of our young soldiers who come back from a deployment and are immediately deployed again. You know, at Fort Polk we have, I think, the finest training facility in the Army and it's the finest they've ever had. They really do an outstanding job there.

We need to be able to get people in and train them there and give them a little standdown time after they come back from these deployments. I'm really concerned, as your statement so well states, that we are not giving you the resources to do that.

So I look forward to hearing your testimony and trying to do something about that lack of resources.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

Mr. Secretary, General, proceed as you wish. When you're finished, we'll go to the questions.

Mr. WEST. Thank you, Mr. Chairman.

SUMMARY STATEMENT OF TOGO D. WEST

Mr. Chairman, Senator Inouye, Senator Johnston, it is a pleasure to be before you again to represent the men and women of the U.S. Army and to be here with my colleague, General Reimer, the Chief of Staff.

With your permission, I will submit my written statement for the record and only include a few oral comments now.

It is a pleasure to be back, not just because the Chief of Staff and I love to come up and testify and be questioned, although that's part of the process that helps us get support, but because we know that in appearing before you, we appear before friends—friends of the Army—a committee, a subcommittee, and Members who have supported the men and women of the U.S. Army and their families and civilians through the years. A support they have noted, we have noted, and which is demonstrated not only in your legislation but also in your attention to their service, and your attention to them by being present to see them, by visiting them.

I might say on behalf of all soldiers that those visits matter a great deal to them. They demonstrate not only that you are interested in knowing about what they are doing but so are the people of the United States whom you represent.

As I appear before you today, Mr. Chairman and members of the committee, once again our focus this year on the part of the U.S. Army is readiness. It is the readiness of our forces which informs our decisions about our soldiers, about their equipping, about their training, and about their leadership.

I can report to you, both the Chief and I, I believe, once again that our Army is ready and will remain ready in the future. That does not blink at the concerns that you have raised about modernization, which we will talk about in a minute.

As we go about our responsibilities for the people of the United States to be a force that can compel, that can serve as a deterrent, that can reassure our allies, and that can assist our civilian leadership in terms of crises internally, our Army is, once again, as you have alluded to, stretched by the requirements of its many missions.

The fact is that today we have some 41,000 soldiers deployed, that is to say, they are in places in over 60 countries other than their home station, whether that home station be in Europe or elsewhere.

As part of that, we have focused again, in terms of the posture, on what the Army is doing in terms of recruiting soldiers, how it is training them, and how we have been able to retain them.

Our active Army has met, once again, its requirement for recruiting soldiers, both its numerical ones and its quality ones. As we near the end of the drawdown, that numerical requirement will increase.

Last year, for example, our requirement for soldiers was some 63,000 new recruits. This year, it will be 70,000. But, as we stabilize our size in 1997, the requirement for new recruits will be about 90,000 soldiers.

I am able to report to you, happily, that the results from the 1994 survey about the predetermination, the predilection, of youngsters to enlist in the Armed Forces has been reversed, and, once again, we are seeing an increased tendency to serve. That success is due both to your support last year, in terms of increased funds for advertising, and also your support in terms of increased authorization for recruiters. Both have made a difference and we thank you for it.

A successful Army, and ready Army, is one that is well trained. This Army remains the best trained in the world. We are, of course, increasing the use of simulators and simulations in order to hold down the costs, but also to increase the efficiency and the productivity of our training.

This budget, the President's budget for 1997, will enable us to keep the training going that is needed to keep our Army ready. It funds some 11 brigade rotations through the National Training Center at Fort Irwin. It funds eight brigade rotations through the JRTC at Fort Polk. It will fund all the combat brigades in Europe through the combat maneuver training center at Hohenfels, and it will fund, as well, some four exercises for four corps headquarters and four division headquarters as part of the battle command training program.

And so, this budget, as part of its fully funding readiness, will fund the training and the recruiting that we need.

Even as we speak of the readiness of our forces, as you have alluded to in your opening statements, quality of life remains of great importance to us and to our soldiers. This is one of the best led armies in the world, and it is, in large part, due to the strength of our senior enlisteds, our noncommissioned officers. But those noncommissioned officers tell me, as they would tell you, and undoubtedly have, when they have had the opportunity, that quality of life is of primary importance to our soldiers and to their families after the readiness issues. Some 65 percent of our soldiers are married in this force; 8 percent of them are single parents or head of single parent families.

This means that quality of life issues for them count a great deal. This budget will fund a 3-percent pay raise for our soldiers. It will fund some 5,000 day care spaces. It will fund eight new barracks complexes, and it will fund the construction, modernization, or upgrading of some 742 housing units.

And so, quality of life, quality of life in terms of pay, quality of life in terms of benefits, quality of life in terms of medical services, quality of life in terms of all the issues that, when we take care of our families, have the consequent effect of providing our soldiers with quiet minds as they go about their business. It remains important to the Army and is funded in this budget.

Mr. Chairman, you pointed out that, even as we focus in the Army and in our budget on near-term readiness, the question that perhaps looms over the Army is modernization. What will we do about it and how will we do it?

The fact is that over the last several years our modernization accounts have not shown increases, have remained roughly in about the $10 to $11 billion range, which has been below our ability to undertake the recapitalization that we would have wanted to do.

We made these decisions with clear minds, with an understanding that we needed to stabilize our readiness activities, to cut our infrastructure, to trim it, and then to begin to recapitalize, and this is what we intend to do beginning with this budget.

Our strategy is, now that we have achieved some savings through the reduction of infrastructure—and we will seek to do more—we will also pursue a regular program of acquisition reform and also, led by General Reimer, our Chief of Staff, we will seek out and use greater efficiencies throughout all the Army's business operations.

Every bit of these savings, where we can find them, we will put into modernization.

In the intervening years, as we accumulate these savings, we will concentrate on equipping our forces for near-term readiness and working toward future modernization goals. We are buying a limited number of high payoff weapons, even as we seek to extend the lives and capabilities of many existing systems. And, of course, if we are going to get real savings, we are going to have to retire some older systems that are expensive to maintain and provide minimal return and combat capability.

In this budget for fiscal year 1997, we will continue the flight test program and develop the reconnaissance mission equipment for the Comanche. The Comanche remains the centerpiece of our aviation modernization intentions. And, moreover, it is an important carrier of our digitization technology.

On the Crusader, we will carry it through the demonstration and validation phase that began in 1994. That will allow the program to transition to its engineering and manufacturing development phase in about the year 2000. Then we can commence LRIP in about the year 2003.

This budget provides for improvements and upgrades to the Abrams, to the Apache, to the Bradley, and to other systems that are essential to our battlefield digitization.

We will also provide within this budget procurement funds for the family of medium tactical vehicles, and this will help to modernize the Army's aging truck fleet. And with this budget, Mr. Chairman, we will continue to make progress in filling our prepositioned brigade sets of equipment, both those ashore and those afloat. This will provide us ready assets for contingencies. One example of those assets being used, of course, is on one of the longest pontoon bridges in history, the one across the Sava River.

Mr. Chairman, members of the committee, the President has submitted a budget of some $60.1 billion for the Army in 1997. We think it is a carefully balanced budget. We have identified in that budget, in my few moments of comments to you, near-term readiness, modernization, and soldiers' and families' quality of life as our highest priorities.

This budget is an attempt to reflect those priorities, to balance the demands of recruiting high quality soldiers and preserving near-term readiness, even as we prepare to provide for long-term modernization needs.

It also reflects the President's and our commitment to our American soldiers and their families, to an Army that has served the country proudly for more than 220 years, a bit in advance of the country's birth, and to assure that its soldiers—these soldiers of your Army—are trained, equipped, and fully prepared to do the missions when they are called upon.

I have had the privilege, Mr. Chairman and members of the committee, to visit our soldiers in Bosnia on two occasions in the last 1½ months. I saw there what you have seen and what the American people have seen: Soldiers who are committed to their year there, their year of peacekeeping, peace enforcement, and whose families await them either in Europe or here in the United States. Yes; they wait with trepidation but with confidence in their professionalism and confidence in the fact that whatever the policy debates back here in the United States, this committee and each of its members supports our soldiers and our families as they do their duty for their country.

For that, they, their families, and in their behalf, the Chief of Staff and I say a simple thank you.

PREPARED STATEMENT

With your permission, Mr. Chairman, you have noted that the Chief of Staff of the Army, one of the finest soldiers I have ever had a chance to work with, is here. This is his maiden appearance before this subcommittee, and with that, if you will allow me, I will conclude so that he can present his opening statement.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF HON. TOGO D. WEST, JR.

Mr. Chairman and members of the committee, I am pleased to appear before you today to report on the state of the Army and to discuss the Army's budget request for fiscal year 1997.

As I begin my third year as Secretary of the Army, I could not be more proud of the men and women who serve than I am today. Like you, I have watched these brave young soldiers respond to their nation's every calling with extraordinary professionalism, dedication, and personal sacrifice. Today, more than 41,000 of them are deployed on nearly 1,700 missions in 60 countries around the world—that is in addition to those who are stationed overseas.

Over the last year, even as the Army's missions increased, we continued to downsize and to prepare for the 21st century by sustaining readiness, enhancing versatility, and improving our power-projection capability. I am proud to represent the Army, its soldiers, civilian employees, and their families before this committee today.

Readiness is our first priority, just as our people remain our most important asset. The Army is ready because we continue to recruit top quality soldiers. Because you have supported our quality of life programs and recruiting initiatives, you deserve much of the credit for our continued success in recruiting—and, therefore, in readiness.

Today's national security environment is one of diverse dangers and complex challenges. The Army Posture Statement, which has been provided to you, reviews the challenges of the post-Cold War world. Today, though, let us focus on the certainties of the future: the Army's missions and its continued readiness.

ARMY MISSIONS: SELECTIVE ENGAGEMENT

One certainty is the continuing need to deploy American soldiers around the globe in order to reassure our allies, to deter potential aggression and, if deterrence fails, to fight and win. Regardless of the mission—combat, peacekeeping, or humanitarian support—the nation will continue to call on the Army.

Why? Because American leadership is essential in today's world. The goals of our National Security Strategy are to enhance our security, to bolster our economy, and to promote democracy. In keeping with those goals, the National Military Strategy calls for flexible and selective engagement. The military strategy focuses on American interests and our ability to make a difference.

As the nation's land force and the strategic core of joint military operations, the Army is a critical player in the National Military Strategy. The Army's role continues to be fourfold: to compel, deter, reassure, and support. And, consistent with the national strategy, the Army contributes to conflict prevention by controlling the proliferation of weapons of mass destruction, strengthening military relationships with other countries, and maintaining a forward presence overseas.

In the last year, American soldiers upheld democracy in Haiti; responded to another threat to regional stability in Southwest Asia; delivered relief supplies to Rwandan refugees; reinforced peace in the Sinai Peninsula; supported refugees in the Caribbean, Panama, and the Pacific; demonstrated resolve in the former Yugoslav Republic of Macedonia; deterred aggression in Korea; and prepared to keep peace in Bosnia and Herzegovina.

While we continue to perform missions like these, the Army will also retain a forward presence in places like Korea and Germany. These forces, along with U.S.-based units that can rapidly deploy, not only reassure our allies, but serve as a deterrent to any potential adversary. This overseas presence is vitally important to our national security.

Another certainty is that the Army will continue to provide support to civil authorities within the United States during natural disasters and civil disturbances. In 1995, active and reserve soldiers assisted local authorities in fighting fires in the Pacific Northwest; aided flood victims in the South and Midwest; provided relief supplies, logistical support, a hospital and other equipment in the aftermath of Hurricane Marilyn; and assisted in numerous other similar situations. Our tremendous capacity to help has earned the respect of the nation.

READINESS: THE RIGHT PEOPLE, TRAINING AND EQUIPMENT

The Army must be ready to accomplish the missions of today and those of tomorrow. Readiness requires that we continue to recruit high quality people and provide them with effective training, responsible leadership, a decent quality of life, and modern equipment.

Recruit

Our people are our most important asset, and we continue to have success in attracting and retaining high quality recruits. We are meeting our recruiting goals in the Active Army, in terms of both quantity and quality. However, success is not easy in the recruiting business. In an era of steadily increasing missions, we will continue to succeed only with adequate funding and with the tenacity of our enthusiastic and dedicated force of recruiters.

In the last two years, we asked Congress for increased funding for advertising and recruiter support. We received it, and that funding has produced results. Our latest Youth Attitude Tracking Survey shows that positive propensity among the nation's youth to enlist in the armed forces remained steady from 1992 through 1995. The drop in propensity among young males—experienced by the Army alone among the Services in 1994—has been reversed. Reflecting our success in advertising, the survey also shows increased awareness among youth of the Army's opportunities.

At the same time, again with the help of Congress, we were able to add more noncommissioned officers to the active recruiting force, increasing authorizations from 4,600 in fiscal year 1995 to 4,950 in fiscal year 1996. That increase, added to the one authorized the previous year, gave us the force we needed to meet this continuing challenge.

Our recruiting goals are two-fold: the right quantity and the right quality. The Active Component recruiting mission has increased in quantity from 63,000 last fiscal year to 70,000 this year. In 1997, as we approach the end of the drawdown—and therefore must begin to replace losses one-for-one—our recruiting mission is projected in the 90,000 range. I am pleased to report that we will meet our quantitative goal in the Active Component this year. However, we are behind in Reserve and National Guard accessions and do not project that we will meet the fiscal year 1996 quantity goals in the Reserve Component.

The Army achieved its Active Component quality goals in fiscal year 1995 and is projected to meet them again in fiscal year 1996. In fiscal year 1995, more than 95 percent of our active Army recruits were high school diploma graduates, while almost 70 percent tested in the upper half of the Armed Forces Qualification Test. Fewer than 2 percent of our enlistees scored in the lowest test score category. We have achieved similar results for all categories in fiscal year 1996.

Clearly, Army recruiters are working exceedingly hard, as they always have. And, we need the continued support of Congress to meet the increasing challenge in recruiting.

Train

It takes training to turn a promising recruit into a soldier, and it takes training to keep our Army ready. Training remains one of the Army's greatest strengths. Our system of individual training and professional development for soldiers remains a model for other armies, particularly for new and developing democracies working to build professional noncommissioned officers corps. Our system of training units is equally strong, with local unit training building up to events at the combat training centers and major joint and combined exercises.

The Combat Training Center program is central to maintaining the Army's readiness. The keys to the program's success are its professional staff, realistic opposing forces, instrumentation on a mock battlefield, and feedback to participants. This budget provides for training at the Army's four combat training centers. It funds 11 brigade rotations through the National Training Center at Fort Irwin, California; and 8 brigade rotations through the Joint Readiness Training Center at Fort Polk, Louisiana. It enables all available USAREUR battalions to complete a rotation at the Army's Combat Maneuver Training Center in Hohenfels, Germany. In addition, the Battle Command Training Program, a computer-driven tactical exercise, will train four corps headquarters and four division headquarters in fiscal year 1997.

To enhance training and make the best use of our training funds, the Army is investing in simulators and simulations. Through an initiative called "Future Army Schools—21st Century," the Army is establishing a Total Army School System with fully accredited and integrated active Army, Army Reserve, and National Guard Schools. Each component is expanding efforts to reduce duplication, share information and resources, and make tough, but necessary, decisions on organizational change.

Besides preparing our individual soldiers and our units for combat, our training system plays a key role in redesigning the Army's operational forces for the 21st century. Through our battle labs program and warfighting experiments, we are testing and refining the components of success on the battlefield: doctrine, training, leader development, organization, materiel and soldier system requirements. The Army of the 21st century will be designed and built based on what we learn through these battle labs and warfighting experiments.

Lead

A ready Army is not only well trained but also well led. Our noncommissioned officer corps is unparalleled, both in terms of the professional development system that sustains it, and the caliber of the soldiers who comprise it. Our noncommissioned officers are an important source of strength. They are highly esteemed not only throughout the Army, but throughout the armed forces of other nations as well. They provide the foundation for our success in joint and combined training exercises, in our Partnership for Peace programs, in military-to-military contacts, and in operational deployments around the world. They are one of the chief reasons for our Army's success. They have earned our highest respect, and they deserve our greatest support.

Sustain

As those highly professional leaders can tell you—and often tell me—quality of life issues remain a top priority of the Army for both married and single soldiers. The places where our soldiers live and work, and the support provided to families, often in the absence of service members who are deployed, are of utmost concern to soldiers and to Army leaders at all levels.

Quality of life initiatives are critical to attracting and retaining high quality soldiers. Pay and benefits, medical care, commissary privileges and retirement demonstrate our nation's recognition of and appreciation for the sacrifices soldiers and their families make. We are committed to ensuring that our soldiers and their families have a standard of living roughly equivalent to their civilian counterparts.

The majority—65 percent—of our soldiers are married, and 8 percent are single parents. We are continuing to expand family support initiatives such as the New Parent Support Program, Programs for School-Age Teens, and Army Community Service programs. We are also continuing to expand the availability of child care facilities throughout the Army.

The fiscal year 1997 budget recognizes that high quality people are essential to readiness. It supports a 3 percent pay raise, adds 5,000 child care spaces, builds eight new barracks complexes, and builds or renovates 742 family quarters. In addition, the budget supports increased initiatives for at-risk youth and expansion of child care options.

Equip

A ready force must be well equipped, and American soldiers are the best equipped in the world. The challenge facing your Army is maintaining—or even improving—that status in this era of fiscal constraint.

American industry provides us numerous technologically advanced systems. That equipment is a force multiplier: it permits us to remain dominant on the battlefield although we may have a smaller force than our adversary. In order to maintain this edge, we must continue to modernize.

Because modernization dollars are scarce, we are buying a limited number of new, high pay-off weapons while extending the lives and capabilities of many existing systems. We will also retire some older, expensive-to-maintain systems that provide minimal return in combat capability. Upgrading proven weapons by adding information technology will increase capabilities and lengthen the lives of our weapon systems. Still, the Army will eventually reach the point where additional product improvement of today's systems will provide only marginal benefits. Therefore, in the out-years of the Future Years Defense Program, we are programming the resources necessary to maintain decisive battlefield dominance.

Procurement accounts have been at relatively low levels for several years while we have downsized force structure and removed older equipment from the smaller force. We know that in order to achieve an appropriate level of modernization, the Army will have to once again fund modernization more robustly, and we are taking prudent, appropriate steps to recapitalize our procurement and Research, Development, Test and Evaluation (RDT&E) accounts. We are achieving savings for reinvestment through two major approaches to recapitalization. First, we are reducing infrastructure through privatization and base closings, and we are reducing our force structure or manpower. Second, we are pursuing acquisition reform. Beyond acquisition reform, we are looking for savings throughout all of the Army's business operations. We are also reducing some programs in order to maintain the health of those that remain. We are retiring old, inefficient systems, like the Combat Engineer Vehicle, and saving the operations and support costs for reinvestment into other, more modern and critically necessary systems.

The fiscal year 1997 budget will allow us to continue development of these and other programs. It will enable us to continue the flight test program and develop the reconnaissance mission equipment for the Comanche. The budget will also carry us through most of the demonstration and validation phase on the Crusader program, a phase we entered in November 1994. This should allow the program to transition into the engineering and manufacturing development phase on schedule in fiscal year 2000. We plan to commence low rate production in fiscal year 2003 and have the first unit equipped with Crusader in fiscal year 2005. The budget continues improvements and upgrades to the Abrams tank, the Apache helicopter, the Bradley fighting vehicle, and other systems that are essential to digitization of the battlefield. And it provides procurement funds for the family of medium tactical vehicles, which will modernize the Army's aging medium truck fleet.

Finally, we are making progress in filling our prepositioned brigade sets of equipment, stored around the world, both ashore and afloat. The much-publicized bridge over the Sava River is a war reserve bridge that was stored in a forward location and quickly deployed.

THE RIGHT BALANCE

To conclude, let me offer a few comments on our decision-making process for this budget submission. The President has submitted a budget of $60.1 billion for the U.S. Army. This request is the result of a very careful assessment by the Army's leaders of our needs and priorities. We identified readiness, modernization, and soldiers' quality of life as our highest priorities. Most importantly, we insisted on the level of readiness necessary to support the National Security Strategy. This budget request provides the Army that level of readiness. Furthermore, this budget balances the demands of recruiting high quality soldiers and preserving near-term readiness, while we prepare to provide for long-term modernization needs.

We structured our priorities to ensure that we are ready to meet tomorrow's challenges successfully. Additionally, we seek some stability in our budget and force structure so that we can meet today's missions while preparing for the future. Although this budget contains some risk in modernization, it provides a force capable of accomplishing its missions for the foreseeable future.

The budget before you reflects today's fiscal realities, and it also reflects the Army's commitment to our nation. That commitment is to serve America proudly—as the Army has for over 220 years—and to ensure that our soldiers are trained, equipped, and fully prepared for the missions they are called upon to perform. We

look to the Congress, charged to raise and support Armies, for wisdom, guidance, and support as we uphold our commitment to the American people.

SUMMARY STATEMENT OF GENERAL REIMER

Senator STEVENS. Thank you, Mr. Secretary.

General.

General REIMER. Mr. Chairman, members of the committee, I am delighted to appear before you for the first time. Mr. Chairman, I thank you for that warm welcome.

I also have a written statement that I would like to submit for the record and ask that it be approved. Then I would like to talk a little bit about America's Army.

Let me start with the bottom line and just say, first of all, that America's Army is not the largest in the world. In fact, it is the eighth largest in the world, and it is the smallest U.S. Army since Pearl Harbor. But it is the best.

You see that by the performance of our soldiers in Bosnia, Korea, and recently in Liberia. We certainly see it at the National Training Center and at the Joint Readiness Training Center. Wherever you go, our soldiers make us proud.

I would tell you that that is the result of a lot of things. It just didn't happen. We had to make some tough decisions up front. For example, the reshaping plan, which we have now executed, was written during Operation Desert Shield.

When I was the Deputy Chief of Staff for Operations and Plans at that time, we were also drawing up the plans to reshape the Army. That plan called for us to take out over 500,000 people from the Army. That includes the active component, the U.S. Army Reserve, Army National Guard, and D.A. civilians—all quality people.

It called for us to close over 600 bases. Most of those were overseas, but there were a large number in the United States, and there was a lot of emotion associated with the closing of those bases.

In shaping the Army—in reshaping the Army—we use the six imperatives that have been so important, and we think capture the values of the U.S. Army throughout history. In doing that reshaping plan, we came up with not a smaller version of the cold war Army but a decisive force that is relevant to the needs of the Nation. It has unique capabilities, but, most of all, it is an integral member of the joint team.

I can tell you in all honesty that I am very delighted to be associated with the best Air Force, the best Navy, and the best Marine Corps in the world. If that were not the case, I would worry an awful lot more. But that is the case, and it is a truly remarkable thing that we have had this combination of military forces.

The remarkable accomplishment, I think, in reshaping the Army is a tribute to many things. First of all, it is a tribute to U.S. technology that gave us the finest weapon systems and the finest equipment the world could provide. It is a tribute to the realistic training program that we have developed over the last 10 years and implemented in places like the National Training Center and the Joint Readiness Training Center at Fort Polk.

It is a tribute to the fact that the American public trusts us. They trust us with their most precious asset, their sons and daughters, and they ask that we take care of them, and that we train them and prepare them for their mission. We try to do that.

It is also a tribute to the support of Congress, particularly this committee. I would also cite the fact that this committee has been especially helpful in helping us with some of the challenges we face in MPA and the quality of life that has already been mentioned.

General Abrams reminded us about 20 years ago that the Army is not made up of people; the Army is people.

By your opening comments, you certainly understand that, and I thank you on behalf of all those soldiers and families out there who appreciate your support.

I should also tell you that the achievement over the last 6 years has not been without pain. The cavalry used to have a term that basically said you cannot ride your horses and put them away wet. If you ride them too hard and put them away wet too often, they don't respond in the long term.

I am certainly not trying to say that we are equating our people to horses, but I think the principle is still the same. We have to be able to provide our people with an adequate and predictable quality of life. We have to be able to provide it not only for soldiers, but for their families.

As my boss, Secretary West, said, the Army is 65 percent married, and that is an important consideration. We have to take care of families just like we take care of our soldiers.

It is hard to really describe the pace of the Army. I can only do that, I guess, through vignettes. But I can remember saying goodbye to an NCO, a sergeant, in a Patriot battalion that was leaving Fort Bliss, TX, about 1 year ago, going to Korea. As I talked to that sergeant, I found that this was his seventh deployment since Operation Desert Shield. Most of them were of short duration, 3 to 4 months, but he was gone for the seventh time from his family.

I walked over and talked to his family, with two small children and a wife. They said, "We can handle this because you're taking care of us." But I have to worry about whether we can get 8, 9, or 10 deployments, and how long it is going to take before they vote with their feet.

I would tell you that, when you work them that hard and deploy them that much, there is a latent impact, and we have to be very careful about that.

Soldiers remain the core competency of the U.S. Army, and 75 percent of our budget goes to paying them, taking care of them, or training them.

Commanders in the field tell me that there are too many shortages of personnel in their units. I understand that. There is too much turbulence. That is a direct result of the drawdown that we have been through.

As I mentioned, we have taken out a lot of people—500,000 people out of the Army. In 1996, we reach our end strength of 495,000. So in 1997, the budget program is for a level end strength of 495,000, and that will provide us some stability. I think that is very important for the Army.

Secretary West mentioned that modernization has been our bill payer. We had to make a choice to take the money out of modernization in order to take care of our people. I think that was absolutely the right choice. We now have to rebalance the equation and put more modernization in, and we are trying hard to do that. We recognize that our procurement to RDT&E ratio is too low. It basically is running 1.5 to 1, and we have to raise that.

We get about 13 to 15 percent of the DOD procurement budget. That is too low. We are doing everything we can to fix that. We are looking at everything we can in terms of efficiencies. How can we help ourselves? How can we get more out of the dollars that you give us?

In that regard, I would ask your help in terms of enabling us to be as efficient as we possibly can be.

I would also say there is excitement in the Army. Generally, I think the soldiers are very pleased with the meaningful missions that they get. You see that with the soldiers in Bosnia. They are proud of what they've done over there. They are also very pleased and very enthused about the visions of the future. For us, it is Army XXI; it is moving the Army into the information age; it is taking advantage of the information age technology that is out there. There is a great deal of excitement about that.

I don't want to leave anybody with the impression that we are getting ready to start, because we have been moving toward that for the last 3 years. We have conducted a number of advanced warfighting experiments. We know a lot about what we want in Army XXI. We are training majors right now at Fort Leavenworth to be able to fight units that don't even exist, because we know that by the time we get the equipment and we get the divisions reorganized, those majors will then be our battalion and brigade commanders and maybe even division commanders. So we must be able to do that, train them now so that they will be able to fight with the equipment and the units that they have in the 21st century.

We are also redesigning the institutional and tactical Army. It is a tremendous undertaking. There is an awful lot going on; 1997 is a very important year.

The budget that has been submitted, I think, takes us through 1997 and allows the Army to do what it has to do.

PREPARED STATEMENT

I thank you very much for your kind attention, and I thank you for your support of our soldiers and their families.

I look forward to your questions.

[The statement follows:]

Prepared Statement of Gen. Dennis J. Reimer

Mr. Chairman and members of the Committee, thank you for this opportunity to talk to you about America's Army. I would like to begin by highlighting areas where the Army needs continued support from this Committee and the United States Congress. I will then talk in detail about today's and tomorrow's Army.

First and foremost, thank you for your support in maintaining the current readiness of the force. Your support for operations and maintenance has been absolutely crucial. Your actions have helped and will continue to help save lives in the future. This effort has maintained forces that were able to answer the nation's call and achieve decisive victory in war and in maintaining the peace. The Army appreciates your continued support in this important area.

Second, I ask your support of Army end strength and force structure sufficient to meet the requirements to deter conflict while actively reassuring allies and performing other critical missions. A properly sized force will be able to achieve the objectives directed by the National Command Authority without placing excessive strain on units, soldiers or families. Today's Army is stretched thin. Valiant soldiers will accomplish all assigned tasks, but if they see this profession as inconsistent with raising a family, then the future of the Army is in serious doubt.

Third, I ask your support for Quality of Life programs identified by the Chairman and the Joint Chiefs of Staff. Our soldiers sacrifice a great deal to serve their country. It is right and proper for us to provide them and their families fair and adequate pay, stable retirement benefits, quality medical care and safe, affordable housing.

Lastly, I ask your support for Army modernization. I do not know when or where, but we will sometime place soldiers in harm's way, on short notice and ask them to defeat a determined and dangerous foe. When that happens, we should be satisfied that we have done our best to prepare them for the task at hand. We are providing adequately for the soldiers of 1995, but we have concerns about the soldiers of 2005. Currently, the Army Research, Development and Acquisition (RDA) budget is only 15 percent of DOD RDA. It will continue to be a challenge to balance the readiness needs of today's and tomorrow's soldiers. The increased resources resulting from inflation adjustments should help us to maintain that critical balance.

DRAWDOWN UPDATE

The Army is nearing the end of an historic drawdown. Army resources have been reduced by about 40 percent and personnel by 35 percent. About 450,000 volunteer soldiers and civilians have left the Army. They left with new skills and with the dignity warranted by their service. Many did not want to leave but understood the changing requirements.

To put the size of this drawdown in perspective, the Army rolls have been reduced by about as many people as are employed by Ford and Chrysler Motor Companies combined. All of these patriots were volunteers who returned to civilian life with training and with the pride that comes from a job well done. That has been a traumatic change both for soldiers and families leaving the service and for those who remain.

It was important to us to ensure that we took care of the people who had served the country so well and to keep the remaining Army trained and ready during the drawdown. In order to do this, the accounts for modernization were reduced, and the most modern equipment distributed across the remaining force. The truly historic accomplishment is that the Army remained trained and ready throughout the drawdown. That has never been done before. This unprecedented accomplishment was achieved through the dedication and selfless service of great soldiers. However, there was a cost. We paid a price that may not be seen for some time.

We have yet to see the drawdown's effects on leadership and retention. In Cavalry terms, our units have been ridden hard and put away wet. Good people will continue to answer the nation's call until they or their families decide they have done enough. It is hard to predict when Operating Tempo (OPTEMPO) will affect retention of quality soldiers, but the time may be growing closer. We are asking a lot of our soldiers these days, and they are magnificent in their response. Still, they are our most precious resource, and we must give them the quality of life that they have certainly earned by their service. The Army needs predictability in funding and stability in personnel end strength.

WORLDS BEST ARMY; ON THE JOB EVERY DAY

The Army sustains 100,000 soldiers forward deployed, primarily in Europe and in the Pacific. In addition, this past year, the Total Army had an average of 21,500 soldiers deployed to missions in about 70 countries on any given day. Current missions include Sinai, Macedonia, Kuwait, Haiti, Partnership for Peace Exercises, Joint Task Forces for the drug war, hurricane and flood relief, and of course Bosnia. Concurrently, units are training to maintain readiness for possible regional conflicts.

While the majority of soldiers deployed were active duty personnel, these missions could not have been accomplished without our Army Reserve and National Guard forces. The Total Army effort included more than 17,000 soldiers of the Army Reserve on training operations or missions in 74 countries. In fiscal year 1995, 24,000 soldiers of the National Guard participated in training missions in 58 countries. Together these soldiers provided medical care in Thailand, taught computer skills in Jordan, and built roads in Central America. They have also responded to hurricanes, floods and other natural disasters in the United States.

Domestic operations were also demanding. During fiscal year 1995, 17,000 soldiers from the Army National Guard responded to 460 emergency missions in 47 states. Army Reserve and National Guard forces are integral to the execution of the

National Military Strategy. All components of the force are involved in executing the Army's missions—along with DA civilians who are indispensable to the total team. Today's Army is a seamless blend of active component, reserve component and DA civilians working together to achieve America's goals.

The part of the Army not in units consists of Table of Distribution and Allowances (TDA) organizations. The TDA Army is meeting the challenges of future war and resource management well, and allowing units to focus on combat readiness. This essential part of the Army develops the doctrine for the Army's future challenges while meeting today's challenges. Our TDA organizations recruit, train and equip soldiers for the Army. Training and Doctrine Command, (TRADOC) one of our largest TDA organizations, continues to run the Combat Training Centers that are the centerpiece of the Army's unit training program. Other TDA organizations run the installation base that supports all our soldiers, develop and acquire equipment for the Army and DOD in areas of Army proponency. The Army is trained and ready today. Our forces are accomplishing all missions, but they are very busy.

PROJECTING THE U.S. ARMY INTO THE FUTURE

The Army provides capable land forces to the joint force commander to compel, deter, reassure and support. Future threats and challenges are likely to continue across the spectrum of conflict. There is no indication that challenges to our security will disappear. There is evidence that challenges will take new forms, and the Army is preparing for that. The best preparation for an unpredictable world is a force with balanced capabilities that the joint force commander can tailor to meet multiple, varying requirements.

The United States currently has the best Navy and Marine Corps in the world. They are fully capable of defeating any threat to U.S. access to the sea lanes and providing power projection for its land forces. The United States is also fortunate to have the best Air Force in the world. The U.S. Air Force is fully capable of defeating any competitor in the skies to achieve air supremacy and global power projection. The U.S. Air Force's ability to achieve air supremacy and destroy targets on the ground is critical to successful operations in any environment. The Army is proud to be part of the best joint forces in the world today.

For its part, the U.S. Army must continue to provide land forces with the capability to deter challenges to U.S. interests and, if necessary, to compel behavior more consistent with U.S. security.

Our capability to wage high intensity conflict deters those who would challenge the United Sates. Our commitment to maintain our warfighting capabilities deters those who would challenge us in this most dangerous type of conflict. Deterrence is far cheaper than fighting a war. Consistent commitment by the United States both decreases our risk and also sustains the lowest defense spending over the long term. General purpose Army forces achieve these and other policy goals. We must continue to recapitalize heavy and light forces to ensure the continued ability of the Army to accomplish its primary mission—to help win the nation's wars.

The U.S. strategy of Peacetime Engagement has led to a dramatic increase in the role of the Army as an instrument of policy. The Army remains uniquely capable of reassuring our allies and supporting efforts directed by the National Command Authority to enhance U.S. security. In the single superpower world, these requirements have dramatically increased. Every foreign military official I meet seeks closer cooperation with the U.S. Army, primarily through exercises or training. Our cooperation with "boots on the ground" helps assure their future military and political cooperation while increasing United States influence worldwide. However, in the tumultuous world political arena, there will continue to be a competition of interests, and there will continue to be those whose interests conflict with ours. Those who wish to threaten the U.S. will do so in the way that most favors their success.

History shows that we build military capabilities like engineers building a dam—to hold back the water that might threaten us. But history also shows that those who wish to threaten us will do so at our weakest point—much as water finds cracks in a dam. During the Cold War our nuclear deterrent led others to challenge us below the nuclear threshold. Similarly, we are challenged today by rogue actors on the world stage—national, sub-national and some without borders. We are also challenged by proxy and by terrorists or others who seek to exploit perceived weaknesses. They know we cannot afford to protect everything. Those who seek to threaten U.S. interests will continue to do so in the manner that appears to offer the greatest advantage. They will seek to exploit a perceived lack of U.S. commitment or capability. If we concentrate our resources on any one particular type of conflict, we may deter that conflict while possibly encouraging another.

Securing peace for our future requires that we field joint forces with balanced capabilities sufficient to deter others from threatening our interests or if necessary to compel behavior consistent with our security. Further, these joint forces must be of sufficient size and strength to reassure our allies and execute necessary operations without providing a window of vulnerability for others to exploit. Modern, professional forces are complex organizations requiring long lead times to organize train and equip. We have to be forward looking in the decisions on structure and size. It takes 10–15 years to rebuild brigade or division sized force structure, but it takes 20–25 years to train the commanders for these organizations.

ARMY FORCE STRUCTURE

The exact structure of our forces is always a subject for discussion. This discussion must always begin by addressing the requirements that flow from our National Security Strategy. In my view, the key to providing the requisite capabilities to the nation is balanced, general purpose forces. I encourage you to ask the joint force commanders in the field what additional capabilities would add most to their ability to execute the National Military Strategy. I think they will agree that U.S. success and influence ultimately depend on putting soldiers on the ground. Those soldiers must be trained and ready when needed.

The Army must be prepared for the most dangerous circumstance, the requirement to deter or, if necessary, compel another significant power in future decades. This requirement drives recapitalization of balanced ground forces with heavy emphasis on modernization. The current force is designed based on acceptable risk—based on the current low likelihood of such a competitor—but further forestalling of modernization would greatly increase risk. There are long lead times for modern equipment and longer lead times to develop and train the leaders who will employ it. Consequently, further deferral of modernization could delay a modernized force beyond the limits of our ability to anticipate future security challenges. Creating such a window of vulnerability could lead to a future environment where the interests of the United States are directly threatened. The current program, as laid out in the new FYDP, provides additional future funding for Army modernization.

The U.S. strategy of Engagement and Enlargement exploits U.S. capabilities to sustain regional stability and foster conditions for economic prosperity. The threats to stability are varied and unpredictable. Many threats occur on the lower end of the spectrum of conflict where a less capable, extremely committed adversary can challenge us. Such opponents often fade into the population or terrain and sustain themselves for long periods. Our participation with Army forces of other nations enables them to deal with such threats better and earlier. As in high intensity conflict, our soldiers need the best available equipment. The Army is aggressively pursuing technology to enhance distributed decision making to facilitate faster, better response at all levels.

Across the spectrum of conflict, the balance between "capital and labor" shifts. In situations where we seek less than total destruction of what occupies the battlespace, soldiers become increasingly important. Compelling or deterring the behavior of a hostile nation, or reassuring and supporting a friendly nation requires soldiers in numbers sufficient to the task. Requirements for U.S. soldiers on the ground continue to increase.

Today's Army provides balanced capabilities but is stretched. The critical element to future peace is balanced capabilities sufficient to deter conflict or to compel a potential adversary to behave in a manner consistent with U.S. security. Equally important is the ability to pursue the U.S. strategy of engagement and enlargement. The deployment of an engineer platoon to train in Mongolia went unnoticed here, but the school that was built was big news in Ulan Bator. Similarly, 61 soldiers in South America were the difference between peace and a border war between two U.S. trading partners there. There are many such actions—daily advancing the security interests of the United States.

The U.S. Army is meeting current commitments, but requirements are still rising. General Sullivan told you requirements have risen 300 percent. I agree with his estimate and, if anything, requirements continue to increase. I have already discussed the numbers of soldiers deployed and missions performed worldwide. As the world's remaining super power, our participation in operations to reassure warring parties is the only path to peace in many parts of the world.

All of this is a lot to ask from an Army whose active component personnel, if assembled in Washington, would fit inside the Mall between the Lincoln and Washington Monuments. Today's Army is the best in the world, but certainly not the largest. The active component is the eighth largest in the world, right behind Pakistan. To execute the National Military Strategy, we should not get any smaller. Numbers matter.

The Army is working to ensure balanced, capable land forces in the future. Army warfighting experiments address mechanized and light warfare as well as command and control and the needs of the individual soldier. Our Force XXI process is showing us better ways to structure our forces for the future. We do not have all the answers yet, but these experiments will continue to guide us toward the most effective systems, organizations and training techniques. Our goal is to enhance warfighting capability by making faster and better decisions at each level of the chain of command and making soldiers more capable of accomplishing their missions at the lowest risk.

MODERNIZATION REQUIREMENTS

The Army has maintained current readiness, in part, by deferring modernization and redistributing modernized equipment across the smaller force. Further deferral of modernization will incur significant risk to future readiness. With a smaller Army, every unit must be able to execute a full range of operations. Our heavy units are general purpose forces that not only can win our wars but can also accomplish other missions, as the First Armored Division has shown in Bosnia. We must modernize their equipment to deter mid and high intensity conflict. Light forces also need the advantages available from information age equipment to enhance their lethality and survivability for the challenges of this unstable world.

Increased production and trade in modern Soviet style equipment affords other nations a chance to field armies with advanced technical capabilities. We must continue to produce and field adequate modern equipment or we risk seeing our systems simply wear out. At the current rate of replacement our tank fleet will not be completely modernized for 40 years. Even the most capable equipment model becomes less desirable when operating beyond its life cycle.

We need to modernize to protect our soldiers. Soldiers with a technological advantage are not just more capable, they are more survivable. The American people expect us to achieve our missions decisively with minimum losses. Providing soldiers the modern equipment they need helps to give them the edge. We cannot defer this until conflict seems inevitable. It is the irony of deterrence that we will be challenged when least ready. The fiscal year 1997 Budget reflects the Army's minimum requirement for modernization. Further reduction in modernization would put the Army's long term readiness at risk.

Some have called for personnel reductions to pay for modernization, but further personnel reductions would incur additional risk. Not only would the Army's ability to execute the National Military Strategy be impaired, the long term viability of the force could be placed at risk. The Army must maintain sufficient structure to execute assigned missions without placing excessive burdens on soldiers and families. Adequate and balanced force structure allows the Army to support and reassure allies in peacetime without compromising its ability to deter regional conflict or requiring it to deploy soldiers so often and so long that it creates hardships for their families. Rather than cut structure, the Army is reexamining and reengineering systems to save money and provide funds needed for modernization.

REENGINEERING EFFORTS

The Army has embarked on an ambitious campaign to become the most efficient organization possible and free up resources for modernization. To achieve balance, the Army is pursuing initiatives and efficiencies throughout the breadth and depth of our operation. Nothing is off limits. We are conducting a functional area analysis of every aspect of the Army, from the fighting force to the infrastructure. The institutional Army, Department of the Army Headquarters, Major Commands, and all our business-like practices are being looked at under a microscope. This is our effort to reorganize and redesign the Army for the world we see in the twenty-first century. However, I must tell you that legislated restrictions, such as those restricting the amount of depot maintenance that can be privatized, limit our potential in this area.

The Army is also conducting a thorough review of development and acquisition programs. The Army will be retiring some older equipment without immediate replacement and accepting the attendant risks. We are doing this to save the exorbitant maintenance costs of these older items. Our intent is to apply these dollars to systems for Army XXI, the force of the Twenty First century. We are making tough choices in the allocation of limited resources. The Army must do this to ensure readiness in the next century. The Army cannot continue to invest both in legacy systems and in replacement systems. Rather than stretching out systems to uneconomic rates of production, we have cut whole systems. We are attempting to maintain economic production of the essential systems we need and can afford. The alternative, deeper cuts in structure, would have resulted in greater capability shortfall in the force.

RISK

As I have stated the Army is trained and ready today, but there is one area of short-term risk and two significant long-term risks. Let me talk to you first about the short-term risk.

The most significant short-term risk is the impact of the unprogrammed costs of Operation Joint Endeavor. If the Army were required to resource Operation Joint Endeavor in Bosnia, funds would have to be reprogrammed from operations and maintenance accounts. By our estimate this would eliminate fourth quarter training for units not directly involved in the ongoing operation. The loss of training would reduce our ability to react to regional contingencies. The units concerned would require additional training time to achieve the required readiness level once resources become available. The Army needs the supplemental funding and reprogramming that has been submitted to fund Operation Joint Endeavor in Bosnia.

The greatest potential threat to Army readiness is the medium and long term impact of an increased operational pace and insufficient modernization funding. Requirements in this uncertain world have increased while personnel authorizations and financial resources have declined.

The first risk is that by failing to modernize and update our equipment, we put tomorrow's soldiers at risk. In the event of conflict, a lack of modern equipment will cost the lives of brave soldiers. Speaking of our failure to modernize after World War II, General Creighton Abrams said, "We paid dearly for unpreparedness during those early days in Korea with our most precious currency—the lives of our young men. The monuments we raise to their heroism and sacrifice are really surrogates for the monuments we owe ourselves for our blindness to reality, for our indifference to real threats to our security, and our determination to deal in intentions and perceptions, for our unsubstantiated wishful thinking about how war could not come."

The second risk is more difficult to assess or to quantify, the risk of loss of future leadership. In the Army today there are hundreds of young soldiers who will be the platoon sergeants of 2010. They will set the standards of readiness and training, and will set the conditions for the success and survival of the Army in future combat. Those soldiers are out there today serving their country proudly. They are training hard and learning well. They may have deployed to Haiti or Guantanamo or both, and may be in Bosnia today. Those soldiers are proud of their units' accomplishments and most want to continue in the Army. But those soldiers have personal goals as well, most notably the desire to have and raise a family.

Excessive time away from home is often cited by quality professionals as the reason for their decision to leave the military. The Army has adapted personnel practices to assure that individual soldiers do not bear a disproportionate share of these requirements and has increased reliance on our Guard and Reserve forces for deployment missions. Still, it is common to find soldiers in today's Army that have been away from home, answering the nation's call for 140, 160 or 190 days of this past year. These soldiers do not complain but proudly perform magnificently every day. It is also not uncommon to see spouses who, though proud and supportive of their soldier's past service, believe they have done their part. All our research shows the spouse to be the most important factor in a soldier's decision to stay in the Army. The Army's future depends on our ability to retain the best soldiers to be tomorrow's leaders.

The Army must have soldiers in sufficient numbers to meet our commitments without placing excessive burdens on individual service members. It is crucial that the Army maintain balanced capabilities, and quality soldiers are the foundation of those capabilities. The country owes its soldiers a quality of life sufficient to raise their families successfully and with dignity. We should do no less.

QUALITY OF LIFE FOR SOLDIERS AND FAMILIES

Quality of life is a readiness issue in force which is 65 percent married. Quality of life directly affects our ability to recruit and retain the quality people who make U.S. forces the best in the world. I want to reiterate what the other Chiefs and I have agreed are the critical elements of quality of life initiatives that are necessary to retain quality soldiers:

—Pay—Maintain fair and adequate compensation.
—Retirement—Preserve the retirement system.
—Medical—Quality medical care through TRICARE.

—Housing—Safe and affordable places to live.

CLOSING

I thank you for your kind attention and I would like to conclude with this observation. The Army needs to maintain sufficient force structure and capabilities to respond to the missions assigned. Inside the Army we have sought to keep things in balance. Our objective is to get the right balance between readiness, force structure, modernization, and quality of life. The Army has retained a trained and ready force through the post Cold War drawdown for the first time in history. America's Army is trained and ready today and is working hard to meet the inevitable challenges of tomorrow and the twenty first century. The American soldier is the finest in the world. Soldiers are our credentials.

BIOGRAPHICAL SKETCH OF GEN. DENNIS J. REIMER

General Dennis J. Reimer became the 33rd Chief of Staff, U.S. Army on June 20, 1995. Prior to that, he was the Commanding General of the United States Army, Forces Command, Fort McPherson, Georgia. Born on July 12, 1939, he is a native of Medford, Oklahoma. Graduating with a Bachelor of Science degree from the U.S. Military Academy in 1962, he began his career as a Field Artillery Officer. He holds a Master of Science degree from Shippensburg State University. General Reimer's military experience spans command positions from company to division level and service on staffs up to Headquarters, Department of the Army.

His commands include an infantry company at Fort Benning, Georgia, an artillery battalion at Fort Carson, Colorado, the division artillery for the 8th Infantry Division in Germany, the corps artillery at Fort Sill, Oklahoma, and the 4th Infantry Division at Fort Carson. He has served in a variety of joint and combined assignments. He served two combat tours in Vietnam; one as an advisor to a battalion of the South Vietnamese Army, and the other as an executive officer for an artillery battalion in the 9th Infantry Division.

He also served in Korea as the Chief of Staff, Combined Field Army and Assistant Chief of Staff for Operations and Training, Republic of Korea/United States Combined Forces Command.

He served three other tours at the Pentagon as aide-de-camp to the Army Chief of Staff General Creighton Abrams, as the Deputy Chief of Staff for Operations and Plans for the Army during Desert Storm, and as Army Vice Chief of Staff.

General Reimer's awards for peacetime and combat service include the Defense Distinguished Service Medal, the Distinguished Service Medal, two Legions of Merit, the Distinguished Flying Cross, six awards of the Bronze Star Medal (one with "V" device for valor), the Purple Heart, and the Combat Infantryman Badge. He also wears the Parachutist Badge, the Aircraft Crewman Badge, and the Ranger Tab. General Reimer is married to the former Mary Jo Powers. They have a son, Michael, and a daughter, Ann Marie.

RECRUITING

Senator STEVENS. Thank you very much. We will try to go on a 10-minute rule here so we can have as many questions as possible.

Mr. Secretary, I am struck by what you said and, combined with what General Reimer said, if we are now approaching an Army which is roughly the size of or smaller than the Army at the time of Pearl Harbor, and we have the foreign deployments that we continue to have—Bright Star in Egypt, Intrinsic Action in Kuwait, Southern Watch in Iraq, Provide Comfort, the peacekeeping force, on the Israeli border, Full Recovery in Vietnam, Able Sentry in Macedonia, Joint Endeavor in Bosnia, which is the largest one, the Safe Border in Peru; we still have Haiti and Cuba, at Guantanamo Bay—with the level that we have now and the fact that you have to recruit 90,000 a year, we are seeing about a 20-percent need for recruitment every year.

Can we sustain these deployments at that low a force level?

Mr. WEST. I think we can, Senator. I suspect you will want to hear from General Reimer on that, as well, but I think we can. Yes;

we are turning over our force at the rate of about 20 percent each year, certainly every 2 years. This means that the training, the leadership, and the equipment—the enhancers—for that force will be very important.

I think it means that the quality of life issues for both soldiers and families are important. But in answer to the basic question of simply by sheer numbers, can we do it, I think a force structure of 10 active divisions, backed up by the Reserve components—the 15 enhanced brigades, the 8 Guard divisions—can enable us, deployed as we are—2 divisions in Europe, 2 divisions in the Pacific, 6 in Conus—to carry out the demands that are being made on the Army and that we anticipate.

Senator STEVENS. General, I remember when we were talking with some of the Air Force people in Britain, they indicated that some of the Air Force people had been on multiple deployments, so that they were spending about 8 months a year away from their families.

That is not sustainable. Are you going to be able to sustain your recruitment with this type of small force and these multiple deployments?

General REIMER. Let me approach it this way, if I can, Mr. Chairman. Let me start with 1995. We have really had good recruiting years. Since I can remember, 1990 or 1991 when I have been tracking it consistently, recruiting has been very high. It is absolutely fundamental that we keep the high quality that we have right now.

In 1995, for example, we brought in over 96 percent high school graduates. We brought in almost 70 percent in category 1 to 3A. All the statistics tell us that the quality was there.

The recruiting command tells us that they will make the goal, which is about 70,000, in 1996. They will make that this year, and they will keep the quality about where it is right now.

I visited a recruiting station in Times Square last week. I talked to an NCO who runs a recruiting station and his commander, Capt. Charles Statton. They indicated to me that the quality is there. In fact, the recruiting sergeant said that he had been in the business for about 6 years. I asked him to compare the quality this year versus the past. He said it is better.

Now that is a sample of one, and I realize that you should not make broad, general, statements on that. But it kind of bears out what we are seeing across the force.

The concern is, as we go into 1997, that we have a recruiting mission of about 90,000. As you indicate, we will turn over about 20 percent of the Army each year. That is going to be a little tougher for us.

We have looked at our program very carefully. I think there are a couple of key things that are important to us. One is to be able to advertise and convince people that we are still in the business of hiring people and that the Army is a good career. There is not as much uncertainty in the Army as some people think. That is why I keep hitting the stability piece. We have to stabilize the Army so that the people understand that it is a good career, and I think it benefits a lot of people.

One of the most important programs to us is to be able to attract people who want to improve their education. So the college program is terribly important to us.

Then, third, we have to throw some good people against the recruiting mission—more good people—and we are doing that. All of that is complex. But it is so important that we get quality people.

So where I come out on that, Mr. Chairman, is that 1996 will be OK; 1997 is going to be a tough challenge, but I think we are going to make it. We just need to keep pressing on it.

Senator STEVENS. Well, I hope we're right. I think we're too low. But there's not much we can do about it now.

We may have to do something about it in the future. I don't know how you can sustain a roughly 500,000 force and be forced to recruit at least 90,000 a year. That is a staggering amount, when you think about it. Twenty percent a year obviously must be leaving.

General REIMER. That's right.

LOGISTIC CIVILIAN AUGMENTATION PROGRAM

Senator STEVENS. So that is tending away from the career service that we thought we had obtained with the concept of the volunteer force. I think we are going to have to look at that in the future, sometime, when we have more time.

Let me talk just briefly here about the logistic civilian augmentation program. We provided now already—this is in connection with Bosnia, of course, in case some people do not recall—we provided about $435 million for that program. I am not critical of the civilian contractor at all. I know there have been really various conditions that have impacted on the performance. The original estimate was $350 million. We thought it was going to be a little higher, so we gave you $435 million. Now I am told that the estimates are in excess of that in terms of the costs of the civilian support for the Bosnia effort.

I am constrained to ask, in terms of your 1997 request, do you have sufficient amounts now to carry that program through into 1997?

General REIMER. The 1997 budget, Mr. Chairman, does include the contingency piece of Bosnia to complete the 1 year term. Yes, sir, it does.

If I could just talk a little bit about the LOGCAP, because I think that is an interesting issue; as you say, it has grown on us. I think there were three fundamental reasons for that.

One is, we changed the operational concept over there. We initially thought we'd go with about eight different camps. They had to go to about 23, based upon what they had to do on the ground.

Once they got in there, saw the terrain, saw what they had to do, they increased the number of base camps that had to be built. So we placed an additional load on the people.

The second thing that happened is that the conditions were much worse than we initially expected. So we increased the quality of life a little bit. We gave our soldiers some wooden floors and those type of things, which increased the costs a little earlier than what we had planned to do.

Then, I think the third thing, the civilian contractor was unable to do a good recon of that area. So, consequently, I think his estimate was probably a little low, also.

So those three things contributed, I think, to the LOGCAP growth, and I think we now have that in 1997. It is programmed in there.

Senator STEVENS. Yes; I noted that the housing and facilities for troops was 300 percent of the original estimate. But the management and administration is almost double. I'll get to the point—and I am not really, as I said, critical of the civilian contractor—but are we shooting ourselves in the foot? That is money that could have gone into maintaining a force structure.

Are we certain that the work that was being done there by the contractor could not, should not have been done by a group of Army engineers and Army people?

General REIMER. We supplemented the LOGCAP with both the Navy Seabees and the Air Force Red Horse. They did a piece of it. What we tried to do is get those camps in place as quickly as we possibly could. The LOGCAP not only helped build initially, but then took over the maintenance of all of those bases.

My opinion is that you will need a LOGCAP for those types of requirements. It is very difficult to keep units that do just those types of things in the active component structure of 495,000.

To go into the Reserve components and pull them up for that is somewhat controversial, also. So, I think it is a good tradeoff. There is a balance between LOGCAP and units doing those types of missions.

Mr. WEST. Mr. Chairman, we think that the LOGCAP concept worked well for us both here and in Haiti. Yet, we in the Army know we have not discovered all the truths in the universe just yet, and we are, indeed, reviewing how that has worked to see if there are some lessons for us to learn as to whether that is the best way to do it or there are other ways that we could have done it.

So we are looking at the very question, I think, that you are asking us, both us and the Office of the Secretary of Defense.

Senator STEVENS. Well, you know, we are talking about $500 million for a 1-year deployment. That is a staggering cost.

I understand the weather conditions. But, again, it reflects on whether or not, if we are going to have this type of deployment repeatedly, and it seems that we have in these past years, whether we shouldn't plan to have facilities that we can move in, rather than build them every time.

That is just a staggering cost to me, to think that we've spent $500 million already on Bosnia for these facilities. And we are halfway through the year, right? We have another half-year and then we have to move them out of there, I take it.

Mr. WEST. Yes, sir.

Senator STEVENS. Before we're through, we may be talking about $750 million.

I think there ought to be some study of whether there isn't some way we could have done that more efficiently and be prepared to do it for the future a little bit more efficiently in terms of cost.

Mr. WEST. And that review is underway.

FORCE PACKAGE I

Senator STEVENS. I understand it has to be done because they are there now.

Let me ask this, General Reimer. Which units now constitute the force package I? I'm not sure I understand this. Now we're going to equip the force package I with all the modern equipment technology. What portion of our fighting force is in force package I?

General REIMER. Mr. Chairman, you know we use the force package concept to identify units in terms of deployment criteria. Force package I is our early deploying units, including the crisis response force—those that we would expect to deploy on a no-notice crisis. Generally, it has included the 82d Airborne Division, the 24th Infantry Division, and the 1st Cavalry Division. Those units are readily available to go on a moment's notice for a no-notice crisis.

Senator STEVENS. How many people are in force package I?

General REIMER. It's basically about a corps. It's basically built around the 18th Airborne Corps, although it's not just clean in terms of a corps, because you get some Third Corps units in there, also.

Senator STEVENS. Is it 60,000?

General REIMER. A little higher than that; about 75,000, Mr. Chairman.

Senator STEVENS. You know, I'm on your side. But I'm looking at the possibility that we've got 75,000 people out of our 495,000 who are really equipped and capable of using our modern systems. Is that right?

General REIMER. No; Mr. Chairman, I think it would be a little misleading to say that only force package I is equipped with our most modern equipment. We've taken the M–1A1's, for example, and equipped the whole active component. The whole active component has Bradleys.

So they have the major end items, the major high tech equipment, that we have out there across the active component. It doesn't matter whether it's in Europe, Conus, Alaska, or wherever it may be. They have that major equipment.

The issue is, we have to equip by force package. So, as we start to bring in additional equipment, for example, the M–1A2, we are equipping, first of all, the 1st Cavalry, who is a part of our force package I. Current procurement only provides the M–1A2 to force package I and part of one division in force package II.

Senator STEVENS. Are General Luck's people in force package I?

General REIMER. General Luck's people are not in force package I. They are equipped based upon the need over there, and they have the M–1A1 tank. Some of their battalions will get the M–1A2 tank.

BALLISTIC MISSILE DEFENSE

Senator STEVENS. I'm going over my 10 minutes, here, but let me ask a last question. It goes to you again, General.

Can you tell us very succinctly what are the Army's needs and priorities as far as defenses against ballistic missiles?

General REIMER. Defense against ballistic missiles? Yes; we have a requirement to protect the installations and the forces that are out there in the field. We have basically said that we want to be able to protect against the lower tier. The Patriot system gives us the best capability. It is in the field right now. We are upgunning that or upgrading it. That is our first priority.

We need to bring on an upper tier. We also need to bring on a system which was corps surface-to-air missile—corps SAM—it's now MEADS—medium extended air defense system—to protect our maneuver forces. So those are our priorities in theater ballistic missiles.

Senator STEVENS. Which is No. 1?

General REIMER. Patriot, protecting the lower tier because it's in the field. We need to improve that capability, and we are doing that.

Senator STEVENS. Now you weren't there, but I want to tell you that we had a substantial battle on trying to upgrade the Patriot to PAC–3 concept last year in our conference. That still is maintained as your No. 1 priority, right?

General REIMER. It is still the Army's No. 1 priority.

Senator STEVENS. Thank you.

Senator Inouye.

FORCE STRUCTURE

Senator INOUYE. Thank you, Mr. Chairman.

If I may, I would like to continue where you left off on force structure.

You have 495,000 active duty personnel programmed at this time, but there are statements being issued by DOD officials which suggest that this may be reduced by 20,000. They claim that it would come out of overhead and administrative people. The most recent survey on propensity to enlist shows it has dropped 40 percent. I note from your statement that category 4's are now 2 percent, as compared to 1 percent of last year.

Are these signs that should concern all of us, General?

General REIMER. May I address, first of all, the force structure issue because I'm always asked about that? Let me start by saying that the force structure for the Army is really driven by the national military strategy. I don't think there's anyone arguing that the Army does not need to have 10 divisions, and that's what we're sized against and that's what we're continuing to hold.

The issue really comes around to end strength, whether 495,000 or 475,000 is the right end strength. People approach that from the standpoint that we have a modernization problem and we need to build back up our modernization account. And if we have to solve that internally in the Army, the only place—because we're so people dependent—that we can go is really in end strength.

And so, people say that we ought to take 20,000 out of the Army in end strength and put that amount of money, which really equates to about $700 million or $1 billion almost, into the modernization account.

I have argued that we probably are about as low as we need to go in terms of end strength right now and that we need to find some efficiencies. We need to run our business practices a little bit more efficiently to find that amount of money, because I certainly agree that we need to beef up our modernization account or we're not going to have the quality equipment that we need for soldiers in the 21st century.

So we are trying to find 700 million to 1 billion dollars' worth of efficiencies so that we don't have to take the end strength cut. That is the debate that is ongoing right now. It's just a different approach to solve the modernization problem.

Senator INOUYE. Wouldn't this 20,000 decrease impact upon your concern about family separations?

General REIMER. It very much does, Senator. Of course, that is the reason I say that we need stability in the Army, because, as I mentioned, we have people deploying too much and we have to stabilize that a little bit. I am concerned that we are moving too fast. That is why I would like to find the efficiencies, because I recognize that we have to build up the modernization account, also.

RECRUITING

Senator INOUYE. As I indicated, last year category 4 inductees were estimated to be 1 percent; this year it is 2 percent. Do you have any maximum level of category 4's, or would you do what we did in the 1970's and go up 20 percent?

General REIMER. Senator, I would be very hesitant to go much above the 2 to 3 percent on category 4's. I think the fundamental difference in the Army that I have seen in the last 20 years is the high quality soldier that we have in the service today. They want to serve. They are very dedicated. They are very professional. They do the job. And I would be a little bit hesitant to tinker with that quality ratio.

So I think that 2 percent probably is doable. I don't think we'll have a problem from that standpoint. And, just talking to the commanders in the field, and talking to recruiters, they tell me that the quality is still there.

I think that is going to be OK, but I don't want to go too high on category 4's.

Senator INOUYE. We are with you on that.

Mr. WEST. Senator, may I say something about that? I may have contributed to a misimpression.

I must say to the committee that we are not having or anticipating difficulties in recruiting either the numbers or the qualities of the soldiers that we want. In fact, my reading, my results, may be slightly different from yours. The last information I heard is that in the latest survey on propensity to serve, for the Army, it has turned around. It is improving.

Moreover, we are not having difficulty retaining the soldiers we want to maintain, and, although we worry, the Chief of Staff and I, about conditions that might cause soldiers at some point to vote with their feet, right now we are retaining the best, and the ones we want. We are meeting all of our quality requirements. We anticipate meeting them in all of our numbers.

This year, for example, the reports from the recruiters are that they have already met their targets for 1996. So I think we are doing all right. In fact, I think we are doing extremely well.

NAUTILUS LASER

Senator INOUYE. In recent days, Katyusha rockets have hit the front pages, and we have been advised that on two separate tests your Nautilus laser has been able to knock down Katyushas. Are you proceeding toward development of a prototype, an operational prototype, of this?

General REIMER. As you indicate, Senator, we had at least one test. You're probably correct on two, but I'm just aware of one case where we have been able to use the high energy laser system out in New Mexico to do that. That information is being worked with the Israelis. There is a great interest in that, obviously. I think it will be a subject of discussion between the leadership of the Department and the military leadership of the Israelis.

The capability is not as robust as we would like to have it right now. It will take time to develop and will probably take some money. There are some limitations with it. It has a rather short range. But it does help in that particular area, and I think it has to be discussed in that context.

Senator INOUYE. Am I out of time?

Senator STEVENS. No, no; I was just wondering are we completely in the white world in what we're talking about?

General REIMER. It's the ability, Mr. Chairman, to defeat 122 mm rockets through the use of lasers. It's being done in New Mexico; it's being done in conjunction with the Israelis.

Senator STEVENS. Thank you. Sorry to interrupt.

No; you're not out of time.

FAMILY HOUSING

Senator INOUYE. You have indicated that you're requesting $75 million for family housing construction. This is a reduction of 25 percent from last year's level. Is this sufficient, Mr. Secretary?

Mr. WEST. Senator, I think it is rarely sufficient. I think we always have more that we'd like to do. I think it will do the job this year. It is part of our effort to balance a program across the board. But no, we would certainly be able to identify more things we would like to do and that we will try to take on in the coming years.

MODERNIZATION

Senator INOUYE. Mr. Secretary, what are the Army's top investment requirements and are they adequately funded in this fiscal year 1997 request?

Mr. WEST. Top investments? For example in modernization, in infrastructure?

Senator INOUYE. Yes.

Mr. WEST. Certainly the programs that I listed in my opening statement, what we're doing with the modernization of—I'm sorry, not with modernization—with the Comanche, our top aviation requirement, I think I've identified. It's a program in which, at this point, right now, we are trying to get two prototypes in the 1995–98 timeframe. One just flew, I guess, in January. We are looking to get six flyable items that we can put in the hands of our soldiers to use as we get further out. That is certainly one of the top ones.

Senator INOUYE. Not too long ago you were seeking four prototypes. Why two now?

Mr. WEST. Well, no—two prototypes immediately and then six further out that could be put in the hands of our aviators for further testing and experimentation.

But we will end up before we go into full production with having looked at eight aircraft. But it's two immediately, one now and one within the next 2 years.

Senator INOUYE. Do you have some date as to when production will begin?

Mr. WEST. Yes, sir; I think so. I thought I might have mentioned it. I can give you that.

General REIMER. I think the current schedule calls for an IOC of 2006 on Comanche right now.

Senator INOUYE. But you don't have the money for that?

General REIMER. That's what the program calls for under the current funding stream that we have. It would be an IOC of 2006, that is my information.

Mr. WEST. Right. Thank you.

Senator INOUYE. Thank you.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

Senator Johnston.

JOINT READINESS TRAINING CENTER

Senator JOHNSTON. Thank you, Mr. Chairman.

Gentlemen, this is for either one of you. I have proposed legislation to have land adjacent to the JRTC at Fort Polk managed by the Army, some additional land, based upon what I understood was a land-use requirements study that showed that we need additional land for additional scenarios for training there.

Is that correct, General Reimer?

General REIMER. The land-use requirements study, Senator, I think is correct. I don't know the details of it and I will get into it. But I don't know the details right now.

I know that when I was at forces command, we were always interested in some of the forest, the land that was held by the Government up there, to use it for training.

I think there are a couple of things. One is it allows us to rotate land and protect the environment a lot better. Then, also, it does expand the ranges that we would have available to use for larger scale operations if that was needed.

Senator JOHNSTON. Well, I wish you would take that detailed look at it because I think the Army supports this legislation and if we need it, we want to do it. If not, the Forest Service is doing a good job of managing.

Now the Army does a really good job of managing. It is very environmentally sensitive. I know that. We have checked into that very thoroughly.

Nevertheless, we don't want to make the change if we don't need it. So if you could give me a letter on that, I would appreciate it.

[The information follows:]

JOINT READINESS TRAINING CENTER [JRTC]

Fort Polk prepared a draft Land Use Requirements Study (LURS) that identified the need for an additional 127,420 acres of maneuver training land for the JRTC. That LURS was returned to Fort Polk on 19 January 1996 for minor revisions that will clarify the land requirements. Fort Polk has completed the revisions and expects to release the revised draft LURS for U.S. Army Forces Command review in May. Fort Polk proposes to meet the largest portion of the land requirement by obtaining unrestricted maneuver use of portions of the immediately adjacent Kisatchie National Forest. The transfer of the Forest to the Army is one option that would meet the unrestricted maneuver use requirement. Fort Polk is required to prepare an Analysis of Alternatives Study (AAS) to explore all options to obtain land to meet the training requirements. That study will be initiated by Fort Polk after the Assistant Secretary of the Army (Installations, Logistics, and Environment) has approved the LURS. After the AAS is approved, the Army will provide Senator Johnston with an analysis of the findings in the LURS and AAS in response to his request for a letter.

ARMORED GUN SYSTEM

Senator JOHNSTON. General, I am very intrigued by the armored gun system [AGS]. I mean, it seemed to me that this was a light gun, it could be air dropped from a C–130 aircraft, it could knock out any tank. But I understand that the Army has canceled that. Why is that?

General REIMER. Senator, we took a look at our modernization program across the board and, basically, when you get into the AGS, there are a couple of points. First of all, it was a well-run program. The company that was manufacturing that was doing a great job. And so, there was no problem from a programmatic standpoint in terms of AGS.

The issue really boiled down to this: We were going to bring in 237. It costs us about $1.5 billion in terms of the dollars that we would spend. I'm not sure that I would agree that the AGS will kill all the tanks that are out there, but it did provide a significant antiarmor capability.

We looked at that and the concern we had was that that's not the best tank killing system for the forces that are involved in those type operations, primarily the 82d Airborne Division and the 2d ACR.

Basically, it boiled down to this. With the C–17 coming on board with the ability to fly M–1 tanks and the ability to fly Bradleys, you have a greater capability by putting them with the light force; for example, the 82d.

Senator JOHNSTON. Is Bradley better than the AGS?

General REIMER. The Bradley is better than the AGS in an analysis of relative killing capability. The other thing that made a big difference on the battlefield was to accelerate things, like Javelin, which have an antitank capability, and to bring on something called EFOG–M, which is a new system that would give us an enhanced antiarmor capability on the battlefield for the light forces.

So, basically, it came down to the return on investment and other systems which are capable of providing that greater capability on the battlefield.

And so, because of the low number, and the fact that we needed those additional dollars and a more robust program in the modernization program, we had to kill the AGS.

TRAINING CENTERS

Senator JOHNSTON. General, I understand that the National Training Center and the JRTC are both becoming really more important to the Army as the various tasks and the need for higher levels of training become clear. Am I correct in that?

General REIMER. Absolutely, Senator. As a matter of fact, I am meeting with the division commanders of forces command and much of the leadership of Europe at Fort Polk next week to talk about JRTC and the National Training Center, and how we go about improving our training program.

RESERVE COMPONENTS

Senator JOHNSTON. I understand that you have a requirement for more combat support units at the same time that you want to decrease the number of combat units in the Guard and Reserve.

Is it your intention to change the mission of the Guard and Reserve to combat support or merely to cut their strength?

General REIMER. No; I think, Senator, what has happened is that the National Guard has been working this in conjunction with the active component and the U.S. Army Reserve in something we call the offsite. That has been meeting now for about 6 years.

They have come forward with a proposal to convert elements of two divisions from combat units to combat service support. These are basically National Guard divisions. In my opinion, that's a good move. It gives us the capability that we need, and it is being supported by all components right now.

So we are developing that concept right now.

M795 155 MM PROJECTILES

Senator JOHNSTON. Mr. Secretary, I have a letter on some M795 155 mm projectiles, which I will give to you and which I would appreciate answering in writing.

Mr. WEST. Sure.

[The information follows:]

AMMUNITION

A direct reply to Senator Johnston is being prepared and will be forwarded under a separate cover.

DEPARTMENT OF THE ARMY,
OFFICE OF THE ASSISTANT SECRETARY,
RESEARCH DEVELOPMENT AND ACQUISITION,
Washington, DC, July 16, 1996.

Honorable J. BENNETT JOHNSTON,
United States Senate,
Washington, D.C. 20510.

DEAR SENATOR JOHNSTON: Thank you for your letter to Secretary West on behalf of Thiokol Corporation, concerning the M795, 155 millimeter, High Explosive Projectile Metal Parts acquisition. We sincerely regret the delay in responding to you.

The Army contemplated making multiple awards for the M795 projectile procurement at Louisiana Army Ammunition Plant, operated by Thiokol Corporation, and Scranton Army Ammunition Plant, operated by Chamberlain Manufacturing Corporation. However, the solicitation clearly indicated that we reserved the right to award the combination of the basic and option quantities based upon the best overall price even if it meant awarding a single contract. Upon evaluation of the proposals, it was determined that a single award to Scranton was less expensive than a split award of 60 percent and 40 percent to the two firms.

With respect to the exclusion of $1.6 million in costs associated with the procurement of capital equipment related to the production of the M795 projectile, this level of detail was not required of offerors in the submission of their costs in their pricing proposal, nor was there anything to preclude an offeror from absorbing these costs under this firm-fixed-price contract. In addition, none of the offerors conditioned their proposal on this particular cost.

At the time of the release of the solicitation, the current welded band design was being considered for revision. However, the offerors were required to propose their prices on the welded band design provided in the solicitation. As such, all offerors were proposing against the same criteria. It is recognized that technical changes can occur at any time in the procurement process, and there is no mandate that all technical issues be totally resolved for the Government to issue a solicitation or make an award. In fact, the Federal Acquisition Regulation clause 52.243–1 "Changes-Fixed-Price", which was included in the solicitation by reference, expressly permits changes in the specification and even permits them to be made on an unilateral basis.

As you may be aware, Thiokol submitted a protest to the General Accounting Office (GAO) on February 22, 1996, following award of the contract to Chamberlain. It included the issues that you have raised in your letter. A complete administrative report was filed by the Army in response to the protest, and a copy was furnished to Thiokol. After having an opportunity to review the report, Thiokol declined to file comments on it to the GAO nor did they request that GAO issue a ruling based upon the initial letter of protest. On April 23, 1996, we received notification that GAO dismissed the protest.

I understand and appreciate your interest in this matter and trust this information assists you.

Sincerely,

GILBERT F. DECKER,
Assistant Secretary of the Army, (Research, Development and Acquisition).

UNITED STATES SENATE,
Washington, DC, March 18, 1996.

The Honorable TOGO D. WEST JR.,
Secretary of the Army, 101 Army Pentagon, Room 3E700, Washington, DC 20330–0101.

DEAR MR. SECRETARY: It has come to my attention that there may be some irregularities in the recent M–795 155 mm projectile contract award. I am told that one competitor may have been allowed to exclude $1.6 million in costs associated with the procurement of M–795 specific test equipment by charging those costs off to the flexible manufacturing center development project. Also, given the discrepancy between the bidders on a cost per round basis, (particularly between the basic and option basis) best and final offers should have been solicited. If nothing else, it would have forced the competitors to sharpen their pencils once more, and yielded a better price for the government. In any event, I am concerned that the Army has issued a sole source contract, when the final product has not even been determined. The Committee will look scrupulously at a "Change Order" to correct the rotating band problem to ensure the Army is not being taken advantage of by their sole source. I do not believe that LAAP competitor's mistake was intentional but rather caused by some confusion as to if the flexible line funds were allowed to be used in bidding a contract.

I would appreciate it if your staff could look into this matter, and I look forward to your response.

With kindest regard, I am

Sincerely,

J. BENNETT JOHNSTON,
United States Senator.

Senator JOHNSTON. Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

Senator Bumpers.

TANK UPGRADE PROGRAM

Senator BUMPERS. Mr. Secretary, when I came to the Senate in 1975, we were buying M–1 tanks for $1 million. The last ones we bought—how long ago, 4 years ago?—were $3 million. Now I see in your requirement that you want to upgrade those tanks, which I heartily support. But I was rather shocked to see that the upgrade is going to cost $4 million each, more than the last tanks we bought.

Why is that costing so much?

Mr. WEST. Well, I think the concept is what you are buying with it, Senator. The M–1A2 is getting very close to a new tank, I mean, a different tank. It has quite a few new capabilities, and General Reimer may want to talk to that. But I think what you are seeing is that it will be a substantially upgraded vehicle. In addition, we were buying substantially more tanks per year back then than now. However, I think that the price is well worth what we are buying.

Senator BUMPERS. How many tanks do we have?

Mr. WEST. In the Army, in the total Army inventory, and in the Active and Reserves or just Active Force?

Senator BUMPERS. Do you know?

General REIMER. It's about 8,000 in the total Army today.

Senator BUMPERS. General, is it about 8,000?

Mr. WEST. In just the Active Force?

General REIMER. No; that includes the National Guard and Reserves.

Senator BUMPERS. Is that what you're saying, General, 8,000?

General REIMER. I think it's about 8,000 in the total Army, but I'd like to give you the exact number on that. I don't have it off the top of my head.

[The information follows:]

TANKS IN TOTAL ARMY INVENTORY

The Army has a total of 7,947 tanks—7,668 Abrams series tanks and 279 M60A3 tanks. The current distribution is 2,753 tanks (all Abrams) in the active force, 951 prepositioned (all Abrams) outside of the United States, 2,904 tanks (including the M60A3's) in the reserve, and 1,339 tanks (all Abrams) in the depot. The M60A3 tanks will be removed from the force by the end of this year.

Senator BUMPERS. And how many are scheduled for upgrading?

General REIMER. We would like to upgrade all of the M1's.

Senator BUMPERS. All of them?

General REIMER. We're currently scheduled to upgrade 998 of the M–1's to M–1A2's. We will have almost 400 M–1's left in the force when we complete M–1A2 production.

Senator BUMPERS. Who is going to be doing most of that?

General REIMER. In terms of where it's going to be done?

Senator BUMPERS. Yes.

General REIMER. I'm not sure.

Senator BUMPERS. I assume it will be done in the private sector.

General REIMER. GDLS—general dynamics land systems—is the company that really handles the Abrams for us. They are upgrading the M–1's to M–1A2's for us.

Senator BUMPERS. Well, when do you hope to get this program underway? In 1997?

General REIMER. The upgrade has already started, and GDLS is doing that. I just don't know the details of it right now.

[The information follows:]

M–1 TANK UPGRADE PROGRAM

The Abrams Upgrade Program takes older M–1 tanks and upgrades them to the M–1A2 configuration. The current approved upgrade program quantity is 998 with the potential for upgrading all M–1's to M–1A2's. The first two M–1A2 upgrades were delivered in October 1994 and over 150 have been delivered to date.

General Dynamics Land Systems Division (GDLS) in Warren, Michigan is the prime contractor for the upgrade program and is responsible for about 50 percent of the work. GDLS operates several facilities including the Lima Army Tank Plant (LATP) in Lima, Ohio and the Detroit Arsenal Tank Plant (DATP) in Warren, Michigan. Other key contractors are Texas Instruments Inc., General Motors Corporation, Smith Industries and Allied Signal Corporation. Key government activities include Anniston Army Depot, Watervliet Arsenal, Rock Island Arsenal and the Department of Energy.

The Upgrade process is as follows:

—Anniston Army Depot (ANAD) tears an older M–1 down to bare metal, disposes of unneeded components (i.e., old turret) and refurbishes some parts for reuse (i.e., AGT 1500 turbine engine) while sending others (i.e., Laser Rangefinder) to the original equipment manufacturer for refurbishment.

—The M–1 hull and reconditioned components are shipped to LATP.

—M–1A2 unique components are procured, some as Government Furnished Equipment and some by GDLS, and shipped to LATP.

—GDLS builds a new turret and assembles the tank as an M–1A2.

The M–1 to M–1A2 Upgrade is less expensive than procuring new M–1A2 tanks when costs are compared at equivalent production rates. For the upgrade, we recondition and reuse the hull, the powertrain and a number of other components which are more expensive to procure new.

BRADLEY FIGHTING VEHICLES

Senator BUMPERS. How many Bradleys do we have?

General REIMER. Senator, approximately 6,700. I'll have to get you that for the record.

Senator BUMPERS. Do you know, Mr. Secretary?

Mr. WEST. I'm sorry, I don't know. I don't know the total. In the active inventory?

General REIMER. We also haven't bought Bradleys since 1993. Basically, we are upgrading Bradleys.

Senator BUMPERS. Are we upgrading Bradleys now?

General REIMER. Yes, sir. We are.

Senator BUMPERS. Who is doing that?

General REIMER. I think that is being done by UDLP with some work being done at Red River Army Depot. But, again, I will have to get you that for the record.

Senator BUMPERS. General, I would like, if you would, to send me an answer to that question, a fairly detailed answer to the question.

General REIMER. Yes, sir.

[The information follows:]

BRADLEY FIGHTING VEHICLES

The Army has a current inventory of 6,720 Bradley M2 Infantry Fighting Vehicles (IFV) and M3 Cavalry Fighting Vehicles (CFV). A total of 6,724 Bradleys were produced. New Bradleys were last produced in 1993. All current Bradley production efforts involves the conversion of existing platforms, either by remanufacturing the vehicle or by vehicle upgrade. Ongoing conversion efforts are as follows:

—454 Bradley A0's remanufactured by United Defense Limited Partnership (UDLP) to the A2 configuration. This effort concludes in 1996.

—1,356 Bradley A1's upgraded to the A2 configuration at Red River Army Depot (RRAD). This effort concludes in 1999.

—1,493 Bradley A2's upgraded by RRAD and depot team field modification to the A2 ODS (Operation Desert Storm) configuration. This effort concludes in 1999.

—1,602 Bradley A2's remanufactured by UDLP to the A3 configuration. This effort starts in 1997. By conversion end state, the breakout of the Bradley inventory by vehicle series is as follows:

M2A0/M3A0	1,804
M2A1/M3A1	
M2A2/M3A2	1,821
M2A2/M3/A2 ODS	1,493
M2A3/M3A3	1,602
Total Fleet	6,720

NATIONAL GUARD ARMORIES

Senator BUMPERS. Last year, I put some language in the military construction bill dealing with National Guard armories because last year there was no request for armories and this year there is no request for armories. How much longer are we going to go with no request for new armories, Mr. Secretary?

Mr. WEST. I actually thought we were doing something with armories this year, Senator.

Senator BUMPERS. The Army didn't ask for any, I'm told, last year, and we didn't add any. Is that correct? And there are no requests in the 1997 budget.

Mr. WEST. I think there's a request. It's not a large one, it's a small request. But I think there is a request for armories in the budget, sir.

Senator BUMPERS. In this budget?

Mr. WEST. Yes, sir; I think I can pull that out for you.

General REIMER. I do know that in the long-range construction plan we have identified over 400 National Guard projects. Many of those are armories. It's almost a $1 billion requirement.

What we have been trying to do is to keep our program and our budget balanced. And so, all of the requirements haven't been filled. We just had to make some tough calls in terms of priorities. But I think we have given them a balanced program.

Mr. WEST. My recollection is that we have them in the National Guard FYDP over a period of time.

General REIMER. I think you are correct in that there is none in 1997. That is my information.

Senator BUMPERS. None?

General REIMER. That I'm aware of.

Senator BUMPERS. That's what staff tells me. There are none in the 1997 request.

General REIMER. But there are 400 projects in the long-range plan with about a $1 billion price tag on those 400 projects.

Senator BUMPERS. What period of time do you envision on that, General?

General REIMER. It's a 5-year program.

Senator BUMPERS. A 5-year program?

General REIMER. Yes, sir.

Senator BUMPERS. How many of those are armories?

General REIMER. I think most of them probably are, but I don't know.

Mr. WEST. What I have here, Senator, is that there are 12 armories valued at $25 million in the Army National Guard FYDP, which is the 5 year period that General Reimer was referring to.

I thought there was $3 million identified with the Army somewhere, and if there is not, then I stand corrected.

General REIMER. Yes; I think $3 million is the number that I'm familiar with, too.

Mr. WEST. In the current budget, somewhere.

[The information follows:]

NATIONAL GUARD ARMORIES

The Army National Guard fiscal year 1997 budget request is $14.3 million for authorization and $7.6 million for appropriation. The request for authorization includes two projects for which appropriation is not requested because the Department of Defense felt the projects should be funded with prior year savings. One project is an Army Aviation Support Facility/Armory Complex Expansion, Bismarck, ND, for $3.65 million. This project requires an armory due to the aviation facility expansion. The second project is a modified record fire range at Hastings, NE for $1.25 million.

There are about 3,100 armories in the Army National Guard. About 1,400 of these armories are inadequate. Replacement is estimated at $5.5 billion. The Army National Guard Long Range Construction Plan (LRCP) lists construction projects, including armories, which the States consider the most critical. The LRCP includes 404 armory projects to replace the worst of the inadequate armories. These projects are estimated to cost $950 million.

The Guard plant replacement goal is 1.75 percent of plant replacement value per year. This rate would replace or renovate each facility about every 57 years and require approximately $100 million per year. However, higher priorities for near-term readiness requirements have constrained military construction resources to only the most critical of projects.

The Guard Future Year Defense Plan (FYDP) currently identified 12 armories valued at $25 million. Execution and planning beyond the FYDP depends upon the priorities for resources.

RED RIVER ARMY DEPOT

Senator BUMPERS. Last year, Mr. Secretary, the military construction budget request for the National Guard was $18 million, and we wound up upping that to $156 million. I don't think we will make any kind of gigantic increase like that this year.

But I can tell you that everybody seated around this table and most of the people in the Senate are more conscious of National Guard armories than just about anything else.

General, let me ask you this question. On the Bradleys, can the modernization of the Bradleys be accomplished at Red River Army Depot?

General REIMER. I think some of it is accomplished there, Senator.

Senator BUMPERS. Well, they do maintenance on the Bradley. But I'm just wondering about the modernization.

General REIMER. I don't know. I'll have to get you the details on that.

Senator BUMPERS. Would you drop me a line on the capability of Red River on that subject?

General REIMER. Absolutely.

[The information follows:]

RED RIVER ARMY DEPOT, BRADLEY MODERNIZATION

Red River Army Depot (RRAD) is not currently facilitized nor is its workforce certified to undertake Bradley upgrade (modernization) efforts at this time. RRAD, however, does perform the I/ROAN (inspect/repair only as necessary), vehicle overhaul, and depot-level maintenance components of the Bradley M2/M3A1 to A2 and

M2/M3A2 to A2ODS (Operation Desert Storm) configuration upgrade programs. RRAD also performs depot and field application of A2ODS modification kits.

The Bradley A3 remanufacturing program is considered by the Army to be the predominate Bradley modernization effort. As such, UDLP is expected to receive a sole source contract to perform system modifications, component integration, assembly, and component/system testing as part of the Bradley A3 upgrade process. Both RRAD and United Defense Limited Partnership (UDLP) have recently submitted competitive proposals in response to an Army solicitation for Bradley A2 to A3 I/ROAN work. Cost estimates from the proposals are under review and possible RRAD/UDLP teaming arrangements are being explored.

Senator BUMPERS. I know one of these days you'd like to quit hearing about Red River, you and the Secretary both, and I want you to quit hearing about it, just as soon as I get my way on everything. [Laughter.]

Mr. Secretary, I want to thank you for the decision that you made to keep MLRS maintenance at Red River. But here is a thing that is mildly troubling to me that happened in the House committee last week. This was in a hearing on depot maintenance. It was before the House National Security Subcommittee on Military Readiness. Secretary White was testifying:

> Representative BROWDER. The M–113, do you consider that a core system?

The secretary answered: "General?"

> General COBURN. The M–113 is indeed a core system.
>
> Representative BROWDER. As such, would its maintenance, therefore, remain in the public sector?
>
> General COBURN. The BRAC language, sir, says that the Bradley fighting vehicle system and related work shall remain at Red River. All other work shall go to either another depot or be privatized. Now we looked at the M–113 very carefully and determined that it is a core workload. We intend, therefore, to keep it in the public sector, specifically we intend to transfer it to Anniston.

Now I don't have any quarrel with that decision providing there is sufficient information to back it up. But if you will recall, Mr. Secretary and General, the BRAC Commission gave you an option of transferring the M–113 work or privatizing it. I wrote a rather lengthy letter to Secretary White last fall asking him not to move it or do anything with it until he gives the people at Red River the opportunity to privatize in place.

I got a letter back from him saying that the Department would fully consider the privatization option and will not implement BRAC 95 at Red River prior to October 1, 1996.

Well, there's a difference between an implementation and a promise, which General Coburn made to Representative Browder over in the House last week. All I am asking—as I say, I'm not asking you to spend money. I'd like to see the studies on this that show that transferring the work to Anniston is economically wise to do. But I'm not going to thwart it. I have pleaded with you to honor the BRAC Commission's report and I'm not going to go back on that.

The BRAC Commission said privatize or transfer to Anniston. Now Anniston has never worked on a M–113, and Red River has been doing it for years. I have to question the cost effectiveness of transferring the work from someplace that is an ordnance depot that has been doing it for years to somebody that has never done it. Second, I question moving it until at least the people at Red River have been given the chance to privatize or to invite somebody in to help them privatize.

So what I want to ask you, Mr. Secretary, is please don't do that until they have at least been told of your present plan to transfer it to Anniston unless they can privatize and prove to you that they can continue doing it as they have for years cost effectively.

Is that a fair request?

Mr. WEST. It's a fair request, Senator. But let me just say this. I have spent probably more time than you and others would want me to spend on the issue of what BRAC told us to do at Red River. And I think General Coburn's statement of what the direction is from us for the M–113's, that is, that if it is core, it must remain in the public sector, and that BRAC directed that it be transferred, is a correct statement by him. For that reason, I'm not sure that there's any discretion left to us on that issue by virtue of the BRAC decision.

Senator BUMPERS. I don't understand, Mr. Secretary, why there would be no discretion left to you.

Mr. WEST. Under the BRAC decision, the BRAC Commission's recommendation, as adopted by the President, the M–113's, if core, would be directed by BRAC to be transferred to Anniston. And we will act on that.

Senator STEVENS. Senator, your time has expired.

Senator BUMPERS. Mr. Chairman, just your indulgence on one further question.

Senator STEVENS. Senator, I want you to just let me make one little comment.

I would be reluctant to allow you to get a commitment from the Secretary to violate the BRAC decision. I'd like to have you submit that in writing.

Senator BUMPERS. Well, that goes to the heart of my next question.

Here's what the Commission said, Mr. Secretary. The Commission recommends the following: Realign Red River Army Depot by moving all maintenance missions, except for that related to the Bradley fighting vehicle series, to other depot maintenance activities, including the private sector.

The private sector, as I get it, is not being considered according to the answer that General Coburn gave last week.

Mr. WEST. Because of the conclusion by the Army that the M–113's constitute part of our core capability, and we would not consider doing the core capability in the private sector, we would retain that as a public sector activity.

Those two lines of reasoning come to the conclusion that we have no choice but to transfer the M–113's to Anniston.

Senator BUMPERS. I take strong exception to that, Mr. Secretary.

Mr. WEST. I understand.

Senator BUMPERS. We will continue this dialog.

Senator STEVENS. Thank you, Senator.

Senator Shelby.

ANNISTON ARMY DEPOT

Senator SHELBY. Thank you, Mr. Chairman.

General, the M–1A2's I believe are maintained and upgraded at Anniston Army Depot. You are familiar with that, are you not?

General REIMER. I'm not familiar with the details of the upgrade of the M–1A2.

Senator SHELBY. Well, Senator Bumpers asked you a question along those lines.

General REIMER. Yes; and I told him I would have to provide the response because I just don't know the details of where they're upgraded.

Senator SHELBY. OK.

Secretary West, just to follow up along the lines that Senator Bumpers was speaking, on the M–113 family of vehicles, which is core capability—correct?

Mr. WEST. Yes, Senator.

Senator SHELBY. The BRAC Commission directed the Army to move that to the depot, is that right?

Mr. WEST. That's our interpretation.

Senator SHELBY. That's your intention. OK.

And since it's core capability, you want to keep that in the depots. Is that right?

Mr. WEST. Yes, sir.

Senator SHELBY. Has that been the Army's long-time policy on core capability?

Mr. WEST. It has. Certainly there have been ongoing reviews of how we will do our capabilities, to redefine what's core. There's a strong sense of support within the Department for privatization. But as to core capabilities, yes, sir, we will perform core workload in public facilities.

Senator SHELBY. Mr. Secretary, when will this M–113 family of vehicles be transferred?

Mr. WEST. Senator, I should know that but I don't have it with me.

Senator SHELBY. Can you furnish it for the record?

Mr. WEST. All right.

Senator SHELBY. I appreciate that.

[The information follows:]

M–113

Current Army plans are to transfer the core, non-Bradley Fighting Vehicle System workload (which includes the M–113) from Red River Army Depot beginning in fiscal year 1997 and completed by fiscal year 1999.

PRIVATIZATION

Senator SHELBY. Secretary West, on the privatization issue, in reports recently submitted to Congress, Secretary White discusses a policy of privatization fostered by competition. You are familiar with that?

Mr. WEST. Yes, sir.

Senator SHELBY. Does it appear that he intends to let public depots participate in that competition? Or does he intend to restrict the depots to core workload, which you alluded to earlier, and that which private industry can or won't do? Do you follow me? Do you see what I mean?

Mr. WEST. Yes, Senator, I follow your question.

Senator SHELBY. In other words, basically, Mr. Secretary, why shouldn't we allow depots to compete with private industry on maintenance workload? I guess that is the bottom line.

Mr. WEST. I think that policy is being hammered out by Dr. White on behalf of the Department with respect to privatization. And I think the best explanation of what he will do, and have us all do, probably is still coming. Dr. White has already testified on this issue.

But I know, for example, that we are still awaiting some policy guidance from his office on privatization. So there is more to learn there.

Senator SHELBY. But if you arbitrarily said, if it were the Army's policy—and I'm not saying it is—that the depots couldn't compete, then you're eliminating them from competition, are you not?

Mr. WEST. I understand the issue you're raising, Senator, and we have all followed it with great interest over the last 2 years, and that one in particular; that is, how would public facilities be able to compete in the privatization arena? I just don't know the answer to it at this point.

BLACKHAWK HELICOPTER MULTIYEAR CONTRACT

Senator SHELBY. Mr. Secretary, the budget request includes 36 Blackhawk helicopters, 28 of which would go to the Army. I understand that the Blackhawk program is currently in the last year of its multiyear contract.

In the fiscal year 1996 Defense appropriations bill, Congress directed that the Army enter into a new multiyear contract for at least 36 Blackhawks per year. What is the current status of the negotiations for the new multiyear contract?

Mr. WEST. Well, I'm not sure that we——

Senator SHELBY. You can furnish this for the record, Mr. Secretary? And General, could you furnish this to me and to the committee?

Mr. WEST. Yes; we would be glad to.

Senator SHELBY. And would you include whether it would include an option to purchase additional aircraft should this committee decide to provide additional funds?

Mr. WEST. All right. We will include that as well, Senator.

[The information follows:]

BLACKHAWK HELICOPTER MULTIYEAR CONTRACT

We are in the last year of the fiscal year 1992–1996 multiyear IV contract. The last aircraft from this contract are scheduled to be delivered in June 1997. Last fall the Utility Helicopter Program Manager convened an Integrated Product Team (IPT) with the contractors and other Army agencies to examine the strategy for the new multiyear and to propose ways to inject commercial practices into the program to create more efficiencies. This IPT was completed January 19, 1996 with 25 of 29 commercialization proposals approved, all 197 military specifications and standards eliminated and a number of data items deleted or reduced. The benefits of these initiatives have been incorporated into the pricing and structure of the proposed new multiyear. Since March 1, 1996, the Program Manager has awarded long lead contracts for the airframes, engines and other components needed to support the production of the aircraft requested in the fiscal year 1997 President's Budget. A proposal for a new 5-year multiyear procurement (MYP V) was received from Sikorsky on April 19, 1996. This proposal is being analyzed in preparation for negotiations which will be conducted during the summer and fall. The contract award is still scheduled for December 1996 (after we receive the fiscal year 1997 appropriation), and will include options each year for additional aircraft quantities as required and funded.

Senator SHELBY. Last year, General, the Army predicted at the conclusion of the multiyear buy in fiscal year 1996 that the Army will still have a substantial shortfall of Blackhawks. Do you know or could you furnish for the record if you don't know the current requirement for Blackhawks for the Army as well as the National Guard?

General REIMER. We will furnish that for the record. I know there is a requirement. I just don't know exact numbers.

Senator SHELBY. Thank you.

[The information follows:]

BLACKHAWK HELICOPTER SHORTFALL

The current Blackhawk requirement for the Army is 2,043. That number satisfies the total force as required by the current Defense Planning Guidance. Specifically, the number 2,043 provides all warfighting requirements (1,084 Blackhawks in Assault, General Support and Command Aviation units), as well as Medical Evacuation (MEDEVAC) units that support the warfighting force (363) and Special Operations requirements (60). Of the 1,507 Blackhawks that are required for the warfighting force, 675 are in the Reserve Component (538 in Assault, General Support and Command Aviation units; and 147 in MEDEVAC units).

The remaining 536 Blackhawks satisfy the sustaining requirements based on percentages of the warfighting totals (151 each for training, operational readiness float and attrition, which represents 10 percent of the warfighting requirement in each sustainment category; and 83 for the Repair Cycle Float, which represents 5.5 percent of the warfighting requirement). These figures represent Total Army requirements and are distributed to the components and Major Commands.

At the end of fiscal year 1996, the Army will have procured 1,450 Blackhawks. Fifty have been lost due to attrition and 16 are currently with U.S. Customs. All Active Component warfighting requirements in Assault, General Support and Command Aviation units have been satisfied. Also, all except 47 Active Component MEDEVAC Blackhawk requirements have been satisfied.

Of the Reserve Component's warfighting requirement of 675 Blackhawks, 298 have been satisfied. The remaining 18 Blackhawks presently in the Reserve Component (for a total of 316 on hand) are located in Table of Distribution and Allowance accounts. This leaves a shortfall for the total force of 593 aircraft.

INSTITUTIONAL ARMY REORGANIZATION

Senator SHELBY. Secretary West, going into the institutional Army reorganization, in which you have been deeply involved, I have several questions there. I understand you have been considering a plan to reorganize the current command structure within the Army, is that correct?

Mr. WEST. Well, I'm not sure I'd say the command structure, but certainly to take a close look at how we do our functions.

Senator SHELBY. It has been reported that, as part of this plan, you may realign the Space and Strategic Defense Command under the Training and Doctrine Command.

Mr. WEST. That's possible.

Senator SHELBY. I said "you may." I know you haven't announced that and maybe you haven't reached a firm conclusion.

But if you did, would the commanding general of the SSDC remain a three star under whatever plan you ultimately pursue?

Mr. WEST. I don't know, Senator, and I think it is fair to say that neither the Chief of Staff nor I have had a chance to review that and, until we do, it is not a plan.

Senator SHELBY. OK. But you are looking at it, are you not?

Mr. WEST. Yes, sir. We are looking at everything. The fact is, as the Chief of Staff has already said very eloquently, we have to come up with a more efficient way of doing business and there is nothing within the Army family that we won't look at.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

Senator Cochran.

NATIONAL MISSILE DEFENSE

Senator COCHRAN. Mr. Chairman, thank you.

The Army has put together a plan which will provide a national missile defense capability. I think it's similar to the Air Force plan in that it's a single site plan.

General Reimer, I am interested to know whether you have a timetable for deploying this and whether you're satisfied that it's compliant with the ABM Treaty, and whether you think it will be sufficient to cover and protect all 50 States against missile attack.

General REIMER. Senator, yes, I'm familiar with the Army piece of the plan you're referring to. We think it would meet the timelines of the three plus three that is being looked at right now. We'd be able to develop the technology in 3 years to support a deployment decision and we'd be able to deploy it within 3 years after that decision. I think in the national missile defense arena there are a couple of things that are very important. Whatever system we deploy out there must be treaty compliant, as you indicated.

I think in our case, we have had our experts look at it, but I don't think there has been an official determination of that. We believe it to be treaty compliant, our piece of it.

I think the second thing is, any system that is deployed out there must contribute to the overall objective system. And, third, it would have to protect against all threats.

My understanding from our people in terms of the capabilities we have is it would protect all 50 States against limited threats.

Senator COCHRAN. There is a request in the budget for the THAAD system of $481.7 million. Mr. Secretary, I'm interested to know whether, according to your information, this amount would be sufficient to permit compliance with the dates that are laid out in the authorization bill that was signed by the President in February for this program.

Mr. WEST. I think our sense is that it would, Senator.

My answer is yes, my sense is that it would.

Senator COCHRAN. They laid out these dates with fiscal year 1998 as the user operational evaluate system date, and the year 2000 for the first unit equipped date. These are deployment dates.

It raises some questions as to whether this amount of money, $481.7 million, is being questioned by some who have looked at it as to whether or not it would really permit the deployment of those systems on the dates that they are directed to be deployed in the law.

And so, the question that I have is has this been looked at? And if you are satisfied that that amount of money is sufficient to comply with the dates, that's good to know. If they're not sufficient, if those funds are not sufficient, how much money would have to be added to the program in this next year's budget to keep it on a path to meet the dates established by the law?

Mr. WEST. Senator, if I may, I will take the question and will give you an answer for the record.

Senator COCHRAN. We would appreciate very much having that for the record.

[The information follows:]

THEATER HIGH ALTITUDE AREA DEFENSE (THAAD)

The Department of Defense (DOD) has tried very hard to comply with the First Unit Equipped (FUE) date in the Defense Authorization Act, and believe actions are consistent with the Act's intent within available resources. The Joint Requirements Oversight Council, given their mission of balancing overall defense priorities, recommended a Theater Missile Defense (TMD) funding cap. They also recommended giving the highest priority to systems, such as Patriot Advanced Capability-3 (PAC–3), that defeat the most immediate, near-term threats. The Army concurred with the decisions to emphasize PAC–3. Within the DOD TMD funding cap, the Army is doing everything possible to get both PAC–3 and THAAD in the field as soon as possible. We have been able to retain the THAAD User Operational Evaluation System availability in 1998 to support our efforts in a national emergency before the FUE date. We also want the THAAD FUE date earlier than 2006 and are exploring our options for doing that within the available resources of the Department of Defense.

OMNIBUS APPROPRIATIONS BILL

Senator COCHRAN. The Army the other day was expressing some reluctance about complying with some language about a remediation of an environmental problem at Eau Claire, WI. This involved some property that the Army had and led to an agreement with National Presto Industries to clean up this site, in effect.

Language was put in a bill recently at my request by this committee and approved by everyone along the line, ending up in the final bill, directing that the Army use funds to comply with this agreement. In spite of this language and the target date established for getting this done, the Army started a series of questioning whether or not the language was adequate to permit the Army to do what it was being directed to do. It was just a big, huge, runaround.

The general counsel's office was said by those we were talking with to be reluctant to approve the Army's action or do what it was being told it ought to do.

Anyway, I want to invite your attention, Mr. Secretary, to the fact that in the omnibus appropriations bill, which we hope will get signed soon, there is language where the Army says, finally, that they need to have added to the language that it has previously been given in order for it to be permitted to obligate funds for this purpose.

I hope you will give this your personal attention. I'm not going to read the language and I'm not going to read all of this into the record. But I hope that you will ask your staff to bring you up to date on this and to tell you why it has taken so long for the Army to do what it said it was going to do months ago. And now we are going to have to write it into the law because the general counsel has decided we need to change the language that we had originally been told was sufficient. We are going to have to change it now.

Going through these hoops everybody comes up with—there is a new hoop and every time you jump through one, you find there is another one you have to jump through—has been an absolute aggravation to a lot of people who have a lot of time that they ought to be spending on other things, which they have to spend on this issue.

But it is finally, I hope, going to get done. What I am going to ask you is if you will commit to me to look at this personally and to insure that the Army obligates the funds upon enactment of the Omnibus Appropriations Act.

Mr. WEST. I will do that, Senator. As a former Army lawyer, myself, I know how frustrating we can get. I don't think the intention has been to do anything other than to try to do what Congress had directed us, and I will see that we do what the Congress directs us to do. I think that is the Army's intention.

Senator COCHRAN. Thank you very much.

Mr. WEST. Yes, sir.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator STEVENS. Senator Domenici.

ARMY FAMILIES

Senator DOMENICI. Thank you very much, Mr. Chairman.

General, might I start with maybe an unorthodox question.

You are in charge of the Army of the United States. That is your job. Let me just say, while there is a lot of glitz and glamour about some of the other branches of the military and parts of the military, I think some of us understand that the Army is the most important service we've got. As one example, you know that we bombed in Desert Storm for 39 days, but the war didn't end until your guys, the Army guys, came in there and threw out the Iraqis.

So I am somewhat disturbed about the budget that you got this year and the budget that you have been getting for the last few years, and I will talk about that in a minute.

But I would like to ask you this. If somebody put the question to you what is the status of the military families of the Army that is under you, what would you tell us?

General REIMER. The military families, Senator?

Senator DOMENICI. That is the families of the men and women that you are the commander of. Are they stable? Are they growing weak? Are things happening to those families that you are worried about? Is there crime? Is crime getting to be a little more of a problem among the military people?

You know that crime is rampant in our society, and we continue to look at you all as if you are miracle people. The families are falling apart everywhere in America, and I just wonder what would your assessment be of the families of these people you are commander of?

General REIMER. Thank you, Senator. First of all, I appreciate you saying that in front of my boss, Secretary West, because we are very proud of the soldiers we have out there and how they represent us. I appreciate you saying that.

To answer the question in terms of the families, it is a very complicated question, and it is the heart of what we are all about. As I indicated earlier, General Abrams reminded us 20 years ago that the Army is not made up of people; the Army is people. We feel that very deeply.

I spend a lot of time with soldiers and talking to families. My evaluation is that, first of all, we have quality people, both soldiers and families, in the Army. They care very deeply about what they are doing. They are proud to be a part of this organization. They are proud of the accomplishments that they have achieved.

They have concerns. A primary concern that is played back to me is, we want to make sure that we have adequate medical care—good medical care. We are concerned about housing. Do we have adequate housing? I am also very concerned that we give them a predictable quality of life. I think the fact that we deploy so many of our people so often with not much notice does not lend itself to a predictable quality of life, and we need to do more in that particular area.

We have too many of our young people on food stamps. We are trying hard to change that. We appreciate the fact that there is a 3-percent raise in the 1997 budget. There is concern out there.

But I will tell you that most of the families who I talk to feel very good about the Army. They enjoy what they're doing and they're very much a part of that particular organization. They like the emphasis that we put on family support groups and taking care of families.

Obviously we can do more, and we should do more. We will try to do more. But I think, overall, that would be my assessment.

Senator STEVENS. Senator, could I interrupt, and we will extend your time?

Senator DOMENICI. Please.

Senator STEVENS. Mr. Secretary, General, I have been called to another meeting here regarding another bill. I want to excuse myself and will turn the gavel over to the vice chairman. I do have some questions that I had intended to ask. I will submit them for the record. I would appreciate your response.

I am very grateful to you both for your appearance here today. Thank you.

Mr. WEST. Thank you, Mr. Chairman.

General REIMER. Thank you, sir.

Senator DOMENICI. General, I was not being critical at all. I really was wondering because you probably ought to have some way of assessing the status of the Army family. I don't mean the Army family in the generic sense. I mean the families of the people that are the Army. I would hope that you regularly look at that. I mean, do we have excessive divorce rates? Do we have child abuse that is growing? Those kinds of things would be indicators to us that the expectation of what you all are may be a little higher than reality. I just lay that before you. I don't want my time to run out on this issue. But I think it is very important.

Could you just comment?

General REIMER. Yes; we do monitor those statistics. We know, for example, that in terms of child abuse, the statistics are a little bit lower than they have been in the past. Spouse abuse is up a little bit. We are concerned about that. We are looking at that.

We do have surveys that we take with the field in terms of how they feel about what they're doing. All of those are feedback mechanisms. But the one I rely on most is being able to get out there and talk with the soldiers and the families face to face. I am very fortunate in that my wife accompanies me and is able also to gauge that. So I think we get a pretty good feel with all the different feedback mechanisms we have.

ARMY BUDGET

Senator DOMENICI. General and Mr. Secretary, I have only two questions, but I want to talk about the first one. In the next 8 or 10 days, the Budget Committee is going to come up with a number, a total overall number for the dollars for the Defense Department of the United States.

We are rather fortunate, for the time being, at least, that the U.S. Senate has indicated its willingness to put a wall between those dollar numbers and the rest of appropriations. That means even if the rest of appropriations for domestic purposes gets tight, they can't run over here in 3 or 4 months and take money away from the Defense Department.

Now there is some dispute about that up here on the Hill, but the Senate supported me rather overwhelmingly on that, and I intend to do that again in this budget resolution. So it is very, very important that the dollar number that we put in this, which is the overall defense number, be as close to right as we can get it.

I want to say for the record that there is no question that the President of the United States low-balled the defense number. I am not asking either of you to comment. I am just passing judgment on the low-balling because each of the branches has come up here and willingly submitted their lists of what they think is imperative to be added to their budgets.

Now in the case of the U.S. Army, their add-on list is the largest of any. I am suggesting that that may be right, that if there are going to be add-ons, it may be the Army's turn to have the add-ons. But your add-ons are about $7.1 billion, from what I understand, and are about 314 add-ons in number. They are accompanied, General and Mr. Secretary, by some language that clearly indicates that if we do not take care of modernization and updating of equipment, we put tomorrow's soldiers at risk. I am not inventing these words. Those are the words coming from you all about the need for modernization and updating and our responsibility to the men and women of the Army.

Now I am wondering, is not that concern the President's concern, or is that just the Congress' concern? And if it is the President's concern, why is the Army's budget $7.1 billion less than the Army is telling us they need with the add-ons they are requesting?

Either one of you can answer that. I don't know if we can give you $7.1 billion, General, but we are going to give you some added money. You can count on that.

Mr. WEST. Well, my comment on the part that you want me to comment on, Senator, is that I and the Chief of Staff of the Army are here to defend the President's budget. The President's budget says $60.1 billion. It identifies within it how we hope to deal with near-term readiness, and how we hope to have a program that balances both quality of life and modernization.

It points out that we have had to make some tradeoffs; and that no, we couldn't get everything into the budget that we would like to have if we had no constraints.

I think you may well have an unconstrained list there. A list that says OK, if all the rules are set aside and the only question is what would we like to have if we were going to have the money anyway, and how would we use it, here is how we would use it—that is my interpretation of the list you have. I gather that. I have not seen it. I don't know the figure of $7 billion.

Senator DOMENICI. That's program. That's budget authority, not outlays. The outlay number is much smaller because the very definition of what they are asking for is research, development, and modernization, which does not spend out in the first years.

Mr. WEST. But my view is that I never would have submitted such a statement, except for this. We have said what we require for this year, $60.1 billion in various different ways. And we have explained the constraints on us in terms of trying to come up with a balanced approach.

Confronted with the question of, "Yes; but if there is to be an add-on beyond it, don't you want to have a voice in how that's done?" The answer is yes, we would like to have a voice because we would rather not have new programs pushed on us. We would rather have an opportunity to do things more efficiently, in a more business-like way.

What you should see represented there is a statement that about 75 percent of any additional moneys would be for modernization that would opt, in almost every case, to bring existing programs forward, and to buy them more intelligently, rather than to add on new things.

I'm sorry, but I've probably spoken too long.

MOBILE LASER

Senator DOMENICI. That's fine, Mr. Secretary. You can state it your way and I'll state it my way. My way is that the President low-balled defense and high-balled domestic discretionary, and did actually the opposite on each function. He has more military spending in the out-years, 4 or 5 years from now, rather than less, and on domestic spending has it very, very high this year and next year and then very, very low 5 years from now.

Now, frankly, I understand that pretty well. And I say to my distinguished Democrat vice chairman that that is great politics. But we are going to have to put the money into defense and, obviously, we are never going to get the cuts in the out-years on domestic spending because it is a 30-percent reduction, all in the last 2 years. I should not say all in the last year. You may be right. There was a 30-percent reduction in the last 2 years. There's some reductions ahead of that in terms of domestic.

So I don't think the military is sending us up this request just because it's kind of nice to have it. I would hope that, General, isn't part of that. I think he's saying we need it.

My time has expired. I want to put a question to you in writing with reference to the HELSTF facility and the research that is going on there with lasers. We have had two successful tests there.

Now two tests are a far cry, General, from being ready for the field. But I am urging in this question that you consider expediting the program in light of these missiles that are coming from Lebanon. We seem pretty close to having something to knock out those

Russian missiles that terrorists are sending over. We're pretty close to having something to knock them out of the air. I think the sooner we can get that done, the better.

Now maybe we cannot expedite it, but I would hope you would look at that because I would think the committee would be very interested in maximizing the effectiveness of that laser, that mobile laser, which would be run by the Army. The Marines want it, too. Everybody wants it.

General REIMER. Senator, someone asked earlier about that, and I responded basically with what you said. You said it better. But I think there is tremendous potential there. We ought to look at that because that is a real world threat that we are having to deal with right now in another part of the world.

Senator DOMENICI. Thank you very much.

Thank you, Mr. Chairman.

Senator INOUYE [presiding]. Thank you.

Senator McConnell.

MAJOR REGIONAL CONFLICTS

Senator MCCONNELL. Thank you, Mr. Chairman.

General or Secretary West, I have just a couple of questions. I just got here, but I'm told that Senator Stevens and Senator Inouye raised the issue of end strength versus modernization.

General Reimer, you mentioned the requirement of driving a 10 division Army is the national military strategy, which means, I gather, that you must succeed in two MRC's. If my numbers are right, you've got a division in Korea, two in Europe and Bosnia, leaving seven, which is about what it took in Desert Storm.

It seems that that means with 495,000 soldiers, you currently are only coming out with a capability to conduct 1.5 regional military conflicts. How could you possibly carry out two with a 475,000 soldier force?

General REIMER. Senator, the 10 division Army piece of the military force that's required comes from the "Bottom-Up Review." Basically, it's a sizing mechanism.

As you say, we do have one division assigned to Korea. We also have two divisions in Europe, and, of course, the majority of one of those divisions really is in Bosnia right now.

The 10 division force, in my opinion, is adequate, given the assumptions contained in the "Bottom-Up Review," to meet the two nearly simultaneous MRC strategy.

The assumptions made there are mobility—strategic mobility, to be able to move the force very carefully. The other assumption that is very critical is, when you get into a two MRC situation, that you will be able to pull your forces back from what we call an LRC, or something like Bosnia, so that all your combat forces, 10 divisions worldwide, would be available to handle the nearly simultaneous two MRC strategy.

Senator MCCONNELL. General, you suggested, I gather, earlier that you needed to find $700 million to $1 billion in efficiencies to meet Army modernization needs. Is that all the Army needs to meet modernization requirements, or all you can realistically achieve through these efficiencies?

General REIMER. Senator, we talked about that in terms of the 20,000 end strength. The dollar figure that is associated with 20,000 is somewhere between $700 million and $1 billion, depending upon how you look at it, whether it's just strictly MPA or whether there is an OMA tail associated with that. I responded in terms of the discussion that was going on in the building about increasing the modernization account—$700 million to $1 billion is not enough to meet all of our needs in the modernization account. It helps an awful lot. Obviously I think we need a little bit more in there, and we will try to get as much as we can through efficiencies. But $700 million to $1 billion would help in the modernization account.

Senator MCCONNELL. Is $2 billion what you really need?

General REIMER. I would say $2 billion is much closer. I would hate to use a figure on that. I think we just have to upgrade the modernization account, but also keep in mind that we have to keep the whole program balanced. We have to make sure we protect the near-term readiness, the quality of life, and then the modernization account.

Senator MCCONNELL. A recent Army War College Strategic Studies Institute report on the future of land power observed:

> What works today probably won't work tomorrow. That is the challenge the Army faces. It's unquestioned superiority at mobile armored warfare will decline in strategic significance as aggressors develop techniques that cannot be easily countered by armored mechanized divisions. Desert Storm is not a prototype for all future wars.

Do you agree with that assessment?

General REIMER. I agree, Senator, that Desert Storm is not a prototype for all future wars. I don't think they will all be that way. However, I would take exception because I haven't seen that study and looked at it in detail. I wouldn't necessarily agree that what worked yesterday would not work today or tomorrow. I think we are proving in Bosnia that the same force and the same high quality soldiers equipped with the equipment they had in Desert Storm works very well. We are able to do the job over there with Bradleys, Abrams, and that type of thing.

Also, I think I would say that you need a very versatile force to meet the demands of a changing world. That is why we want to have the right mix in terms of special forces, light divisions, and heavy divisions, so that you can tailor that force to the mission.

I think that's the way we have built the Army and that's what we're going to continue to do, to give us a very versatile and decisive force for the missions we are asked to perform.

MACEDONIA

Senator MCCONNELL. Let me shift to another area in conclusion.

The Army has declared United States troops deployed since early July 1993, to participate in the U.N. mission in Macedonia as noncombatants, justified under section 7 of the U.N. Participation Act and chapter 6 of the U.N. Charter.

Common to both provisions is the requirement that U.S. troops are noncombatant in a noncombatant area.

At the same time, President Clinton has sent letters to Congress stating that our troops are combat equipped and Macedonia is a combat zone. In addition, a recent Army field manual on peacekeeping includes a wiring diagram of chain of command showing a unit in Macedonia, Task Force Able Sentry, as reporting through a chain of combatant command from the United States European Command through Naples and Zagreb to the task force.

As you probably know, only chapter 7 U.N. Charter operations anticipate deploying troops into combat under U.N. command, but chapter 7 operations require congressional approval.

The issue is whether the administration uses chapter 6 U.N. authority to circumvent submitting deployment decisions for congressional approval.

Can you explain the inconsistency between the President's representation that Macedonia is a combat zone, the Army manual on peacekeeping defining the combat chain of command from United States EUCOM to the Macedonia task force, with, on the other hand, a chapter 6 authorization?

General REIMER. Let me take the field manual and the chain of command, if I could, Senator. I will try to do it that way.

The chain of command flows from the task force commander there in Macedonia up through General Crouch, who is also dual-hatted as the LANDCENT commander or as the United States Army Europe Commander.

The manual, I think, is probably a little bit out of date. I'm not sure which manual it is, but that has been just recently changed.

The command and control of that task force has always been under U.S. command and control. So I don't think that's a major issue in terms of the command and control.

In terms of the combat zone, I have not visited those soldiers over in Macedonia, and I don't know. But my impression is that they are there on a peacekeeping type of operation. They are keeping peace in that area, and I think they are doing a very good job. There has not been anything such as combat fatalities, or anything like that.

Mr. WEST. I visited those soldiers there, along the northern border of Macedonia twice, Senator. I have observed them in action.

I think, as I listened to the question you propounded, you may want a written response from us that would perhaps better delineate the issues you are raising than anything we can tell you here.

Senator MCCONNELL. I think that would be helpful.

[The information follows:]

MACEDONIA

I do not believe there is any inconsistency with respect to the command and control arrangements for Task Force Able Sentry or the manner in which it is detailed to the United Nations. Let me begin by defining some terms concerning the "chain of command." The term "combatant command" or "unified combatant command" is statutory and designates a military command which has a broad, continuing mission and which is composed of forces from two or more military services. (10 USC 161). The unified combatant command which has the responsibility for the geographic area encompassing Europe is the U.S. European Command, or USEUCOM.

When CINC, USEUCOM received orders to deploy U.S. forces to Macedonia to participate in the U.N. mission there, he constituted, consistent with his statutory authority as a unified combatant commander under 10 USC 164, Task Force Able Sentry (TFAS). By direction of the President, pursuant to Article II of the Constitution and Section 7 of the United Nations Participation Act (UNPA), these troops have been detailed to the United Nations Preventive Deployment (UNPREDEP) in the Former Yugoslav Republic of Macedonia (FYROM). Section 7 of the UNPA authorizes the President to detail personnel of the armed forces to the U.N. as "observers, guards, or in any non-combatant capacity."

The fact that TFAS personnel are under the command of a unified combatant commander, CINC USEUCOM, in no way implies that they have a combat mission. As the theater CINC, he is responsible for the full spectrum of military missions assigned to him by the President. The U.S. chain of command for Task Force Able Sentry personnel thus runs from the Army Lieutenant Colonel commanding TFAS, through CINC EUCOM (a U.S. Army 4-star general), and, ultimately, to the President.

The manual to which you make reference, Army Field Manual 100–23—Peace Operations—depicts, on page 23, the command structure for Operation Able Sentry. The Figure displays the command relationship between EUCOM and TFAS. Additionally, it reflects the fact that TFAS is under the operational control of the U.N. structure in Macedonia (formerly United Nations Protection Force—Macedonia (UNPROFOR—Macedonia, now UNPREDEP)).

As Commander-in-Chief, the President has both the constitutional and statutory authority to employ the armed forces in order to further U.S. national interests, to include the provision of assistance to the U.N. in the maintenance of international peace and security. In assisting the U.N., the President may, on a case-by-case basis, place U.S. forces under the temporary operational control (OPCON) of a U.N. commander. The chain of command between the President and his field commanders, however, remains inviolate, even when U.S. forces are OPCON to the U.N.

The concept of operational control does not authorize foreign commanders to modify the basic mission under which U.S. forces are assigned to a U.N. force or deploy U.S personnel outside the mission area. Foreign commanders may never separate U.S. units, nor may they administer discipline or otherwise exercise administrative control over the assigned U.S. forces. Accordingly, the UNPREDEP commander is only authorized to direct the day-to-day activities of TFAS within the scope of the mission previously approved by the U.N. and the U.S. government.

The command relationship has no impact on the nature of the U.N. operation. That is determined by the mission and mandate for the operation, which are set forth in the U.N. Security Council Resolution creating the operation. The U.N. operation in Macedonia, UNPREDEP, was established by the Council consistent with its authority under Chapter VI of the U.N. Charter and remains authorized under that portion of the Charter.

The sections of the U.N. Charter under which the Security Council acts to establish an operation reflect the nature of the proposed operation, and in particular, whether the operation is expected to require the use of force (other than in self-defense) and whether the host country has consented to the deployment. The authority of Chapter VII typically is invoked when an operation is not consented to by the State concerned and when it is foreseen that the operation may require a degree of force going beyond that required for self-defense. Where these circumstances are not present, the Council does not invoke its authority under Chapter VII and the operation is described as a "Chapter VI" operation. Hence, the absence of a reference to "Chapter VII" in a resolution authorizing or establishing a peacekeeping operation indicates that the operation is not considered by the Security Council to be an enforcement operation.

The mission of UNPREDEP is to report and monitor cross-border incidents between Macedonia and its neighboring countries, the Federal Republic of Yugoslavia (Serbia and Montenegro) and Albania. The mission was established at the request and with the consent of the government of Macedonia. UNPREDEP troops are equipped for self-defense only and perform a passive observer mission. Accordingly, TFAS conducts an observer mission aimed at deterrence of hostilities through reporting, rather than through confrontation.

Based upon the above mission, the President, in July 1993, provided notice to Congress of his intent to deploy U.S. Armed Forces in support of the U.N. mission in Macedonia. In this notice, the President informed Congress that the U.S. contingent would serve under the operational control of UNPROFOR—Macedonia, and would conduct missions as directed by the U.N. Commander. The President also noted that the U.S. forces would deploy with sufficient equipment to fulfill their peacekeeping mission and "* * * to defend themselves if necessary.

After determining that UNPROFOR—Macedonia was a Chapter VI peacekeeping mission, the President directed the deployment of U.S. military personnel in accordance with Section 7, UNPA and pursuant to his constitutional authority as the Commander-in-Chief.

In my reference to FM 100–23 being somewhat out of date, I was referring to the fact that the chart indicating the combatant chain of command for TF Able Sentry did not reflect the organizational changes that have taken place since the publication of the field manual. Since publication, many units have been deactivated—in this case the Berlin Brigade. Consistent through these changes, however, is the fact that the chain of command continues to flow from the U.S. National Command Authorities, through the unified command structure, down to the Task Force level. This reflects established U.S. policy and doctrine, directing U.S. commanders to retain command over all assigned U.S. forces during multinational operations.

The intent of the original chart was illustrative in nature, and it continues to serve as a useful historical example of a national command structure for a peace operation. At the current time, there is no plan to expedite the normal five year revision process for the field manual.

The combined U.N. operations in the Balkans were designed to bring stability to the region and to contain/prevent the conflict in Bosnia-Herzegovina from spreading into neighboring countries. The U.N. operation in Macedonia was created, at the request of the Macedonian government, to monitor its borders with Bosnia and to report any developments that could signify a threat to the territory of Macedonia. Although the peacekeepers in Macedonia previously had not encountered hostilities, the President, in his July 1993 notice to Congress, acknowledged the "potential" for spillover of hostilities into Macedonia. Based upon this "potential" U.S. forces deployed to Macedonia with a sufficient capability to both fulfill their peacekeeping mission and ensure adequate force protection. Thus, in a subsequent report to Congress, the President referred to these units as "combat-equipped."

Although TF Able Sentry deployed with light weapons, armored personnel carriers and emergency helicopter lift, these capabilities are for self-defense only. They conduct an observer mission aimed at deterrence of hostilities through reporting, not confrontation. Their mission does not include enforcing the peace at the border or providing security for the FYROM.

As I also previously indicated, the President, in 1993, acknowledged the "potential" for spillover of hostilities into the FYROM. That is why U.S. forces deployed with sufficient self-defense capability. However, FYROM is not a "potential combat zone," nor has it been designated as a "combat zone" by the President.

Concerning the use of the term, "maneuver area." It is a general term used by the Army to describe tactical movement of forces in a prescribed area in order to accomplish a given mission, and does not, of itself, indicate that combat operations are being conducted.

PACIFIC OCEAN DIVISION [POD]

Senator **McConnell**. Thank you very much, Mr. Chairman.

Senator **Inouye**. Thank you very much.

I have a question, if I may. The Pacific Ocean Division of the Corps of Engineers has responsibility to manage annually about $2.5 billion in contracts, representing about 2,500 military projects. It is stationed and headquartered in Hawaii, in close proximity to the commands they serve, U.S. Army Pacific, USARPAC, and CINCPAC, the Pacific Command. The POD has oversight responsibilities over more military projects than any other engineering division in the United States.

So I was rather stunned when I saw the Corps of Engineers recommendation that the headquarters in Hawaii be disestablished and sent to San Francisco. The action is out in the Pacific, and, accordingly, I sent you a letter, Mr. Secretary, a couple of months ago expressing my concern and my chagrin, and suggesting that the recommendation was not meritorious. I was hoping to get a response. I hope you will review this matter because we consider this very important.

So, if you would, look over my letter again and if you can give me a response to that, I would appreciate it.

Mr. **West**. All right, Senator. I had the impression that in terms of the actual delivery of services, what was proposed was not a variation on the delivery of services, but an effort to take what was two divisions and try to do substantially that work with one. But I will be pleased to do as you ask.

Senator INOUYE. I would appreciate that.

[The information follows:]

CLOSURE OF U.S. ARMY CORPS OF ENGINEERS PACIFIC OCEAN DIVISION [POD]

The letter Senator Inouye refers to was dated February 6, 1996. Since Mr. H. Martin Lancaster, the Assistant Secretary of the Army (Civil Works), had responded to him by letter on March 11, 1996, I asked Mr. Lancaster to personally meet with Senator Inouye to further discuss his concerns. The meeting occurred on May 9, 1996.

BALLISTIC MISSILE DEFENSE

Senator INOUYE. Senator Shelby.

Senator SHELBY. Mr. Chairman, I have a few followup questions for General Reimer dealing with ballistic missile defense.

General Luck is the commander over there in Korea, is he not? Is that right, General?

General REIMER. Yes, sir. He is.

Senator SHELBY. There was an article that was attributed to him. I don't have it before me. It may have been in the New York Times a couple of days ago, several days ago. It suggested he was concerned, as most soldiers would be, about ballistic missile defense and being stationed right there with his troops in Korea.

He said, basically, that he wished—and I'm paraphrasing—that he could get THAAD now. Are you familiar with that?

General REIMER. Yes, sir; I am.

Senator SHELBY. You said earlier that the Army's No. 1 priority, dealing with ballistic missile defense at the moment, is the upgraded Patriot. Is that correct, General?

General REIMER. Yes, sir.

Senator SHELBY. What is the second one? I know it hasn't come on line yet. Is that THAAD?

General REIMER. THAAD would be the Army's second priority, based on Gen. Gary Luck's desire, and I think any commander on the ground would want to have that upper tier protection, also.

Senator SHELBY. Absolutely. It's just about going to be essential to protect your troops and whatever you have on the ground in the future, is it not?

General REIMER. I think your assurance of protection is much, much better when you have an upper tier protection to go along with your lower tier, and that is what THAAD would provide.

There is, as you know, a competition going on between the Navy and THAAD as to which one of those will be the upper tier protection.

Senator SHELBY. But the Army seems to be on the cutting edge, doesn't it?

General REIMER. We like THAAD very much.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you very much.

Before recessing, I would like to add a footnote to our hearings.

I think most Americans who are concerned about military affairs would look upon our defense structure as the super power of the world, and most military experts look upon the United States Armed Forces as those of the super power of the world.

And yet, Mr. Secretary, you touched upon something that I think should get some elaboration. China has 2.2 million men and women in its active army. North Korea has 1 million men and women in the active army. India has 980,000, Russia has 870,000, South Korea has 520,000, Vietnam has 500,000, and Pakistan has 500,000. The United States has 495,000, and if we go through with a further reduction of 20,000, then Iran and Iraq would be ahead of us and we would be No. 10.

ADDITIONAL COMMITTEE QUESTIONS

I just wanted to close with that statement.

Mr. Secretary, General Reimer, in behalf of the committee I thank you very much for your testimony.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY TOGO D. WEST

QUESTION SUBMITTED BY SENATOR TED STEVENS

MILITARY PAY RAISE

Question. Does the military pay raise recommended in the FY 1997 budget close the gap between military pay and comparable private sector wages? If not, what would it take to maintain parity with private sector wages?

Answer. Current law establishes that military pay raises will equal the previous year's Employment Cost Index (ECI) minus one-half percentage point. This methodology for computing the pay raise has resulted in a pay lag behind the civilian sector pay of 13.2 percent as of January 1996. A three percent pay raise will reduce the gap to 13 percent.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

HIGH ENERGY LASER SYSTEM TEST FACILITY (HELSTF)

Question. The HELSTF was established to conduct Army, Air Force, Navy and other Department of Defense (DOD) high-energy laser test programs, including systems, target interaction, and beam engagements. The HELSTF is the primary DOD facility for conducting high energy laser tests, including damage and vulnerability, component subsystem, integrated system verification and full scale lethality demonstrations. HELSTF is the only fully integrated laser test facility in the world, combining several lasers with an extensive array of the instrumented test sites to include dynamic operational sites and the Sea Lite Beam Director.

Last year, the Congress appropriated $24.7 million for the continued operation and maintenance of the facility. Nearly $500 million has been invested in HELSTF throughout the past 15 years.

This year, we are also supporting two programs currently ongoing at HELSTF: the Army-Israeli Nautilus testing program and its Tactical High Energy Laser Rapid Acquisition Demonstrator (THEL-RAD) follow-on. This truck mounted laser system is technically sound and meets battlefield requirements to deal with a wide range of threats, including short range rockets, unmanned aerial vehicles, anti-radiation missiles, cruise missiles, helicopters, and fixed wing aircraft.

Nautilus is producing real results. A short range rocket was tracked and melted on February 9, 1995. Three days later, an operational short range rocket with a live warhead was completely destroyed in flight. The THEL has been ranked as the highest science and technology priority of the Army's Depth and Simultaneous Attack Battle Lab and as the second highest of 140 concepts examined in the Army's Mobile Strike Force 2010 planning. The Marine Corps has also established a Mission Needs Statement for THEL.

We are all painfully aware of the daily tragedies occurring along Israel's northern border, and I think everyone would agree we must do everything possible to bring stability and peace to the area. It seems to me that a big step toward that goal would be to eliminate, or at least greatly curtail, a terrorist's ability to create havoc by the indiscriminate use of Katyusha rockets. That is why I was excited and encouraged by recent tests at White Sand's Missile Range (WSMR) HELSTF where a laser was used to destroy two of these rockets. For the first time, we actually have the ability to effectively deal with this insidious threat. However, we cannot tolerate the 10-12 years it normally takes to get a system fielded. We must act quickly, and I would like to know how fast we can get this capability fielded and what the subcommittee can do to help?

Answer. We do not expect it to take 10-12 years to field a laser system capability in support of Israel. In conjunction with OSD, we have embarked with the Israelis on a 60 day study effort to determine the optimum near term means to address their security needs. We are in the process of analyzing system alternatives currently in the inventory, as well as looking at Nautilus as an Advanced Concept Technology Demonstration (ACTD). As an ACTD, we are looking at several testing and system power options. Initial development and testing will be conducted in the U. S., and we can then either test the system in Israel at one-quarter power, or decide early to build the system at full power and then ship and test in Israel. In either scenario, the system is expected to be shipped to Israel during late calendar year 1997 or early calendar year 1998. To this end, a DOD delegation departed for Israel on May 5, 1996 for a round of discussions to address system and security needs among other things.

WHITE SANDS MISSILE RANGE BID FOR ARMY REGIONAL PERSONNEL CENTER

Question. I wrote a letter to Assistant Secretary Lister on March 19, 1996, to request reconsideration of the decision to recompete the award of the Western Regional Personnel Center. I believe that recompeting the award is unwarranted, and that White Sands Missile Range (WSMR) should be awarded the Western Regional Personnel Center without the further delay that will result from an unnecessary and wasteful expenditure of government funds on recompetition. I have a copy of that letter for your information (we have not received a response).

Local government and University officials met with Assistant Secretary Lister's staff recently. After the original decision to recompete the award it was planned that the Army would conduct the necessary environmental impact statements at each of the sites. I am now informed that the Army has decided to contract out to a private company the environmental assessment requirements.

The Army has informed my office that their original plan was to open the doors to the Western Regional Personnel Center in March of 1998 and to have it fully operational by September of 1999. I have requested information describing how this decision to contract out the environmental assessment will effect that schedule. I have not received that response, however, I am very concerned that any delay beyond the original time frame will be unnecessarily time consuming and cost consuming.

Can you please inform me how the decision to contract out the environmental assessment will effect the time schedule for the Western Regional Personnel Center, and will you please reexamine this issue in the context of my letter to Assistant Secretary Lister?

Answer. The environmental assessment of the Western Region will have no impact on the time schedule for the stand up of the Western Region's Civilian Personnel Operations Center(CPOC).

On March 1, 1996, Assistant Secretary Lister rescinded her decision to locate the West Region CPOC at Fort Huachuca after she became aware that the initial selection decision had not properly considered the potential environmental impacts, as required by both the National Environmental Policy Act (NEPA) and Army Regulation 200-2, Environmental Effects of Army Actions. Assistant Secretary Lister then directed the U. S. Army Forces Command to perform the appropriate environmental analysis and prepare NEPA documentation prior to submitting a recommendation on the location of the West Region CPOC.

The environmental analysis process for the West Region site location is ongoing. It is anticipated that this process will be completed in October 1996. I will inform you of the site selected when the environmental analysis has been completed.

MEDICAL RESEARCH AND DEVELOPMENT CONSOLIDATION

Question. In 1982, the Congress directed the consolidation of defense infectious disease research programs under the Army as Lead Agent. To effectively deal with this, the services elected to establish an oversight committee called the Armed Services Biomedical Research Evaluation and Management Committee, or ASBREM. This committee was formally acknowledged by the Congress as the organizational entity for coordination of all defense medical research efforts. Given the success of ASBREM, please provide answers for the following questions: What steps have the services taken to institutionalize the ASBREM process into their planning, programming and budgeting for medical research programs?

Answer. The ASBREM conducts its planning through Joint Technology Coordinating Groups (JTCGs). The Army representatives to those JTCG's which include mission areas supported by Army funding, or DoD funding which is programmed by the Army (i.e., Combat Dentistry, Infectious Diseases of Military Significance, Medical Chemical and Biological Defense, Military Operational Medicine and Combat Casualty Care), are the program directors, or Research Area Director's (RADs) responsible for preparing input to the Army Program Objective Memorandum. The JTCG's meet several times a year. The RAD's are responsible for integrating programmatic guidance developed from the ASBREM activities supporting the development of the Defense Technology Area Plan (DTAP) and the Army processes involved in the development of the Army Science and Technology Master Plan (P6.1-P6.3 programs) and the Medical Mission Area Materiel Plan (P6.4-P6.5). By vesting joint and service specific planning, programming and budgeting responsibilities in the same individual, the Army has institutionalized the ASBREM processes into the analogous Army processes.

Question. Is there a DOD Directive which formally establishes the ASBREM as a management entity and sets forth an operational and administrative structure? Please provide a copy of this directive and any Standard Operating Procedures (SOPs) governing the functioning of the ASBREM.

Answer. The ASBREM is established by a Charter signed by the Service Acquisition Executives, the Service Medical Materiel Developers and the Chair and Co-Chair, i.e., the Director, Defense Research and Engineering and the Assistant Secretary of Defense, Health Affairs (ASD[HA]). The Office of the Under Secretary of Defense for Research and Engineering directed the creation of ASBREM in March 1981. The original charter established membership as a medical flag officer from each of the three Services. No specific processes or SOPs were specified in the Charter, although an O-6 level Secretariat and seven JTCG's were specified. This basic organization survived subsequent charter revisions with the major change being the addition of a Chair and Co-chair at the OSD level in the early 90s. A charter revision is planned for this year and will be discussed at the next ASBREM meeting in July. A copy of the current signed charter follows. A set of formal Secretariat SOPs is also being prepared for discussion at the July meeting and could be provided subsequent to approval.

CHARTER OF THE ARMED SERVICES BIOMEDICAL RESEARCH EVALUATION AND MANAGEMENT (ASBREM) COMMITTEE

1. The Armed Services Biomedical Research Evaluation and Management (ASBREM) Committee is established in recognition of the continuing need to provide management oversight, direction and coordination of Defense medical research, development, test and evaluation (RDT&E) programs. The Director, Defense Research and Engineering (DDR&E) serves as the policy advisor to the Secretary of Defense for research and development (R&D) activities and exercises oversight over DoD R&D programs; while, the Assistant Secretary of Defense (Health Affairs) (ASD(HA)) serves as the medical policy advisor to the Secretary of Defense and exercises oversight of medical issues under the Defense Health Program. Decentralized program execution is accomplished by the Military Departments and Defense Agencies. The goals of the ASBREM Committee are to:

a. Sustain and improve the responsiveness of the Defense medical RDT&E programs to priority medical readiness and war fighting requirements;

b. Reduce costs and strengthen Defense medical RDT&E programs;

c. Ensure effective integration of Defense medical RDT&E plans and programs within overall DoD RDT&E plans and programs; and,

d. Improve effective exchange of technical information.

2. ASBREM Committee objectives are to:

a. Establish and sustain a Defense Medical Science and Technology Plan which articulates a balanced investment strategy for exploiting key technologies in resolving mid- through long-term medical readiness and war fighting capability issues, and preventing technological surprise, addressing biomedical systems issues, and sustaining a responsive biomedical science and technology capacity;

b. Establish and sustain a Defense Medical Materiel Development and Acquisition Plan which is integrated with, and responsive to, Defense modernization guidance and priority medical readiness and war fighting requirements;

c. Continue and enhance cost effective resource utilization (fiscal, personnel, facility and, policy) by improving the responsiveness of Tri-Service coordination and cooperation in medical research and development;

d. Obviate unnecessary duplication in the Military Departments' and other Agencies' medical science, technology, and development programs; and,

e. Provide the mechanism to address medical RDT&E organizational roles, conduct research management studies, resolve organizational and functional alignment issues regarding biomedical research among the Military Departments and Agencies.

3. The ASBREM Committee shall:

a. Review and revise annually, as appropriate, the Defense Medical Science and Technology, and Defense Medical Materiel Development and Acquisition Plans;

b. Review resource adequacy, accomplishments, and responsiveness of plans to eliminate unwarranted duplication of the Military Departments' medical RDT&E programs and budgets in support of the Defense Programs Objectives Memorandum (POM) and budget request; and,

c. Review annually the relevance and responsiveness to planning guidance of medical RDT&E: science and technology accomplishments; medical materiel developments; and, acquisition accomplishments.

4. The ASBREM Committee shall be organized to facilitate timely accomplishment of the Committee's goals, objectives, and functions and shall include representatives of the Office of the Secretary of Defense and the Military Departments' medical materiel developers.

a. The ASBREM Committee shall have five members; a chairman, a co-chairman, and a single member from the Army, Navy, and Air Force.

b. The DDR&E, or designee, shall serve as the Chairman and the ASD(HA), or designee, shall serve as Co-Chairman of the ASBREM Committee. They shall provide nonpartisan leadership to the ASBREM Committee.

c. The ASBREM Committee members of the Military Departments shall be the senior uniformed medical materiel developer of each of the Departments as follows:

> Commanding General, U.S. Army Medical Research and Development Command, Department of the Army
>
> Assistant Chief, Operational Medicine and Fleet Support, Bureau of Medicine and Surgery, Department of the Navy
>
> Commander, Human Systems Center, Air Force Materiel Command, Department of the Air Force

5. These uniformed members of the ASBREM Committee shall serve under the leadership and oversight of the Chairman and Co-Chairman, as the ASBREM Steering Group. The Steering Group is responsible for ASBREM Committee operations, including:

a. Meeting schedule and agenda formulation;

b. Development and review of the Medical Science and Technology, and Medical Materiel Development and Acquisition Plans;

c. Review and analysis of Military Department medical RDT&E POM and budget requests;

d. Annual review of medical science and technology, and medical materiel development and acquisition accomplishments;

e. Executive oversight of the Joint Technology Coordinating Groups;

f. Ensuring their respective Military Departments' timely submission of a coordinated medical RDT&E program and budget formulation, especially where Executive or Lead Agency responsibilities have been assigned; and,

g. Oversight of implementation of ASBREM Committee decisions.

h. Establishing additional study or working groups, on an as needed basis, to address Steering Group directed biomedical RDT&E management issues and to make recommendations for their resolution to the ASBREM Committee. Each special working or study group shall be chartered with a specific mission and shall be reviewed for termination or continuation on an annual basis unless so specified by the ASBREM Chairman.

6. An ASBREM Secretariat, composed of the personal representatives of each member of the ASBREM Committee, shall provide day-to-day assistance to the ASBREM Steering Group in execution of the Steering Group's functions and responsibilities. The Chairman shall appoint an individual who shall serve as the Chairman of the ASBREM Secretariat.

7. The Joint Technology Coordinating Groups (JTCGs) are established for each of the major DoD biomedical research and development areas. The groups are composed of a single member from the Army, Navy and Air Force. JTCG members are biomedical research managers and key laboratory personnel with expertise in area of JTCG oversight. The JTCGs are charged with:

a. Establishment, at least annually, of a formal coordination and review in regard to planning, programming, and budget formulation;

b. Development and submission of annual recommendations to the ASBREM Committee on inter-Service distribution of responsibility for program execution, resources, initiatives, and other matters concerning specific program operations; and,

c. Facilitating effective scientific and developmental program coordination.

d. Empaneling special working groups or sub-panels to address issues specifically associated with the responsibilities of the JTCG. Each working group or sub-panel shall be tasked with a specific mission and the working group or sub-panel shall be reviewed for termination or continuation on an annual basis by the JTCG.

8. The JTCG Chairman shall be the representative of the respective Lead or Executive Agent Service where such responsibilities have been assigned. Absent a designated Lead or Executive Agency responsibility, the JTCG Chairmanship shall rotate on an annual basis among the representatives of the Military Departments.

OFFICE OF THE SECRETARY OF DEFENSE:

Anita Jones

Anita K. Jones, Ph.D.
Director, Defense Research and
Engineering

Stephen C. Joseph, M.D.
Assistant Secretary of Defense
(Health Affairs)

DEPARTMENT OF THE ARMY:

(signed) George E. Dausman 24 Nov 93

Assistant Secretary of the
Army for Research, Development
and Acquisition

Richard T Travis

Richard T. Travis
Major General, MC, USA
Assistant Surgeon General for
Research and Development

DEPARTMENT OF THE NAVY:

Nora Slatkin

Assistant Secretary of the Navy
for Research, Development and
Acquisition

W A Buckendorf

W. A. Buckendorf
Rear Admiral, MC, USN
Assistant Chief of
Operational Medicine and
Fleet Support, Bureau of
Medicine and Surgery

DEPARTMENT OF THE AIR FORCE

Clark G Fiester

Assistant Secretary of the Air
Force for Acquisition

George K Anderson

George K. Anderson
Major General, USAF, MC
Commander, Human Systems
Center, Air Force Materiel
Command

Question. In consonance with congressional language, how has the oversight and management of ARPA biomedical programs been integrated into the ASBREM process?

Answer. Biomedical Programs sponsored by ARPA are included in the ASBREM planning processes leading to drafting of the Defense Technology Area Plan and its review in the DDRE-sponsored Technical Area Review and Assessment process. ARPA representatives have participated in Secretariat level activities and have been invited to participate in JTCG activities. More formal linkages have been a topic of recent discussion at the Secretariat level.

Question. How are the services held accountable for their participation in the ASBREM process?

Answer. The Director, Defense Research and Engineering holds each Service accountable through the Defense Technology Area Plan and Technology Assessment Review and Analysis (TARA) Review process. This process forms the basis for Defense guidance and OSD review of Service POM submissions.

Question. We note there are seven Joint Technology Coordinating Groups. How do these groups effect service interaction to ensure appropriate coordination, program relevance, identification of issues, and resolution of those issues? How does the ASBREM hold these Groups accountable for meeting their responsibilities?

Answer. The ASBREM Joint Technology Coordinating Groups are charged with: 1) at least annual formal coordination and review in regard to appropriate planning, programming and budgeting formulation; 2) development and submission of annual recommendations to the ASBREM Committee on Inter-Service distribution of responsibility for program execution, resources, direction or emphasis, new starts or initiatives, and other matters concerning program responsiveness and requirements; and, 3) facilitating effective scientific and developmental coordination established for each of the major DOD biomedical research and development areas. The activities of the JTCG's are subject to oversight by the ASBREM Secretariat and specific issues are raised to the level of the full committee as appropriate. Planning products and execution performance are reviewed annually. This annual review has now been integrated into the DDRE-sponsored TARA process.

Question. Does ASBREM have the authority to re-allocate funds? Does this affect the ability ASBREM to function effectively in its oversight role?

Answer. ASBREM has no independent authority to reallocate resources but recommendations are made to the Services through the Service medical flag members and to OSD through the chair, the DDR&E, and co-chair, the ASD(HA). This leveraging of existing authorities and processes for resource allocation has proven effective.

Question. Describe how the following programs are integrated into the ASBREM process: 1. Breast Cancer Program; 2. Defense Women's Health Program; 3. HIV Program; 4. Persian Gulf Illness Program; and 5. Telemedicine

Answer. 1./2. The Breast Cancer (BC) and Defense Women's Health Research Programs (DWHRP) are initiatives prompted by special Congressional appropriations supporting Army-led, Defense-wide, research programs. These programs are not handled as part of the normal JTCG oversight responsibilities but by separate special coordinating groups under ASBREM oversight. The business plans for breast cancer and defense women's health developed by these special coordinating groups established joint oversight processes which were approved by the ASBREM. There is overlap in membership between several of the JTCG's and the special coordinating groups. The Service Secretariat representatives have further directed the chairs of the two special coordinating groups to coordinate activities with each of the permanent JTCG's. 3. HIV research activities are overseen by the Infectious Disease JTCG, but there is a separate Tri-Service committee which plans research activities. 4. Programmatic activities in the PGI research program are funded in large part by the DoD/VA cooperative research effort with planning activities coordinated through DDR&E. Service JTCG members are involved with this program. 5. Research in the telemedicine arena is also Tri-Service in nature. Specific telemedicine projects are integrated into both the Combat Casualty Care and Military Operational Medicine JTCG's. Telemedicine projects funded by ARPA are primarily integrated into Combat Casualty Care planning and reporting activities. In addition to RDTE projects, ASD(HA) sponsors operational tests of telemedicine prototypes through the Defense Health Program. Tri-Service coordination of all telemedicine activities occurs through the Telemedicine CEO Support Group and the Telemedicine Testbed Board of Directors under the oversight of the ASBREM Co-chair. There is overlapping membership among ASBREM and these telemedicine coordinating groups.

Question. What role did ASBREM play during the Base Realignment Army Closure (BRAC) process to ensure that unique medical research and development capabilities were preserved? What service capabilities were affected by BRAC and how have these been addressed by the ASBREM?

Answer. With the cognizance of the Office of the Secretary of Defense (OSD), the ASBREM community conducted planning for realignments in medical Research, Development, and Acquisition (RDA) capabilities separately from BRAC95 in a special study entitled ASBREM Medical RDA-21. Recommendations from the Medical RDA-21 Study group were passed to the

Service Science and Technology (S&T) Executives for consideration as part of the BRAC95 recommendations. This is similar to the process in BRAC91 which led to codification through BRAC91 of Memoranda of Agreement for co-locations negotiated through the ASBREM outside of the BRAC process. The primary product of the Medical RDA-21 study was a proposal for consolidation of medical RDT&E programs of the Army and Navy into an Armed Forces Medical Research and Development Agency (AFMRDA). Although the creation of the AFMRDA was not specifically mandated in BRAC95 language, those recommendations impacting medical Research, Development, Test and Evaluation (RDTE) capabilities which were incorporated are largely consistent with, but not dependent upon, the plan for an AFMRDA. The major BRAC95 provision impacting medical RDTE capabilities was the relocation of the majority of research programs conducted at the Naval Medical Research Institute (NMRI) in Bethesda to the new Walter Reed Institute of Research building under construction in Forest Glen, Maryland. The only BRAC91 realignment impacting medical RDTE which was not consistent with ASBREM planning was the relocation of the human diving program from NMRI to a non-medical laboratory in Florida. Planning for implementation of the AFMRDA was recently reinitiated at the request of the Deputy Secretary of Defense.

Question. From the perspective of the services, has the ASBREM been effective in meeting the intent of the Congress in providing oversight and management of the defense medical research and development programs? Please provide statement from each service that includes an assessment of effectiveness, deficiencies and recommended improvements.

Answer. The effectiveness of the ASBREM was recognized by all Services when it was chosen as the model for Project Tri-Service Reliance. Nevertheless, the scope of the ASBREM Charter (i.e., full spectrum RDT&E rather than S&T), the current sponsorship of programs (i.e., Medical Chemical and Biological funding by ATSD(NCB)), and its membership are no longer in alignment and the Army supports the current effort to revise the charter in order to address these deficiencies. The Army expects the ASBREM to continue to evolve its processes effectively to meet future challenges in the coordination, joint planning and management of medical RDTE programs. The ASBREM has certainly demonstrated its flexibility and effectiveness in the past and no major changes in processes appear necessary.

Question. The services are undergoing considerable change due to downsizing, reduction in operating budgets, and reducing infrastructure. Defense medical research and development programs are under considerable pressure to accommodate to these changes. It is recognized that while the forces are becoming smaller and the missions changing, defense medical research programs must continue to support operational requirements. Programs in infectious disease, combat casualty care, military operational medicine, and others must retain a critical mass in order to meet service needs. With respect to these issues, please respond to the following questions: What action(s) is/are DOD and the services undertaking to address the above issues to preserve the service capabilities to meet their requirements?

Answer. According to information reported in the 1995 Army Science and Technology Master Plan, medical manpower resources have been reduced to a slightly greater extent than in other Army technical areas. Nevertheless, relatively greater levels of partnershipping with other Services in cross-Servicing agreements and co-locations; coupled with reduction of excess and obsolete laboratory infrastructure, should enable the Army to sustain core medical technology capabilities at the current projected end-strength for FY99. The participation of Army medical laboratories in the proposed Laboratory Demonstration Personnel Demonstration Project will facilitate maintenance of the vitality within the remaining scientific workforce. Should further requirements for downsizing endanger the maintenance of core capabilities the Army and other Services will certainly look to the ASBREM for solutions and alternatives, as they have in the past.

Question. The Committee is aware of a proposal to consolidate the services medical research and development programs and infrastructure into a single defense agency. Where is this proposal in the staffing or implementation process? What advantages would consolidation offer over strengthening the ASBREM process and empowering ASBREM to have a much greater level of authority in managing defense medical research and development?

Answer. Last year, the Assistant Secretary of the Army (RDA) was requested by the Under Secretary of Defense (A&T) to explore the feasibility of a consolidation of Army and Navy medical RDT&E programs into a single organization with the Army as Executive Agent. In the absence of clear evidence of any certain savings or efficiencies, the three Service Acquisition Executives declined to proceed on their own without further formal guidance from OSD through the Service Secretaries. That guidance was recently provided in the form of a memo from the Deputy Secretary of Defense. The Army will take the lead to develop a plan for such a consolidation in coordination with the other Services, but the savings and efficiencies to be gained from consolidating organizations significantly downsized, recently reorganized, possessing diverse mission responsibilities and customer bases, and already involved in significant Reliance activities under the ASBREM, may not justify the execution of such a plan. That decision will be made at OSD. The Army feels that the future role of the ASBREM should be restricted to strategic guidance, approval of planning activities and oversight of execution of Service managed programs or as a Board of Directors for any consolidated organizations. Management by committee is contrary to the principles of Goldwater-Nichols as implemented in the DoD 5000 series Directives.

Question. How would ASBREM be integrated into functioning of a consolidated defense agency for defense medical research and development?

Answer. The proposal reviewed last year portrayed an expanded ASBREM Committee, incorporating the Service Acquisition Executives and additional OSD membership from the ATSD(NCB) as a Board of Directors. In this new capacity the ASBREM would select the key leadership positions for the new, jointly-staffed organization from Service slates of nominees and arbitrate disputes. The ASBREM would continue to provide oversight of all biomedical programs where ever executed through strategic guidance, approval of the products of planning activities, and by reviewing program execution.

Question. There have historically been interservice issues associated with the practice of Service Lead and Executive Agency with regard to program planning, budgeting and execution. The infectious disease program is a notable example. What advantages and disadvantages would be afforded in the establishment of an Independent biomedical research and development agency in comparison to programs under a Lead Agent?

Answer. The possibility of an independent Defense Agency was rejected by OSD at the time the Medical RDA-21 report was submitted during the BRAC95 deliberations. An independent agency would result in reduced control and accountability by all services. The current requirement for focused military relevant research could be diluted by the conflicting requirements of three services. The close relationships between the military scientist and operational physician might be weakened through the establishment of a separate Defense Medical Research Agency. The proposal is to place management accountability for the consolidated organization under the Army as Executive Agent. In essence, the organization would be a jointly-staffed organization under the authority of the Secretary of the Army, and not an independent Defense organization. The current proposal does not alter assigned Lead and Executive Agent programmatic responsibilities, except for execution management responsibility which will rest with the Executive Agent. The Services would still retain their historic, and essential, role in generation of requirements and provide the required funding. For the past four years, joint program planning by the JTCG2 (Infectious Diseases) following ASBREM direction has alleviated interservice concerns within the Infectious Disease Research Program and demonstrated the effectiveness of ASBREM.

Question. Globally speaking, what are the services/is the department doing to support preservation of DoD medical research capability?

Answer. The Army strongly supports continued military relevant biomedical research programs. This is evidenced by the continuing Basic and Applied Medical research funding lines in both the Program Objective Memorandum and the Long Range Research and development and Acquisition Plan. In order to effectively manage, develop and acquire the medical research products, the US army Medical Command in 1994, directed the creation of a fully functional Army Medical research and Materiel Command. This command is intended to serve as the single source point of contact for all Army medical research and development. The new command also has responsibility for all medical materiel acquisition and medical logistics, thus allowing a single command responsibility for the cradle to grave process for medical products. This command also supports continued strong participation within the ASBREM in order to facilitate coordination but avoid duplication of military biomedical research programs.

QUESTION SUBMITTED BY SENATOR MITCH McCONNELL

CHEMICAL DEMILITARIZATION PROGRAM

Question. There is strong opposition from the local community to incineration of the chemical weapons stockpile located at the Bluegrass Army Depot in

Richmond, Kentucky. What alternatives, if any, to incineration is the Army planning for the Richmond arsenal?

Answer. The chemical weapons stored at Bluegrass Army Depot consist of nerve agents VX and GB filled rockets and projectiles and mustard agent HD filled projectiles. At this time, incineration remains the only technology capable of destroying contaminated explosives and complicated metal parts. While the Army continues to monitor developments in the commercial sector, no technology has emerged which is believed capable of destroying the stockpile at Bluegrass Army Depot within the current Chemical Stockpile Disposal Program schedule. The Army's current Alternative Technology Program is targeted at the two bulk-only sites which do not store explosives with the agent, but rather store the agent in simple, steel cylinders with a high agent to metal ratio, making non-thermal decontamination much more achievable.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

TRAINING CENTER ROLES

Question. According to a March 18, 1996, ARMY TIMES article, "Fort Polk is not a particularly good place to have a heavy Armored Cavalry Regiment (ACR), because of the training facilities." I for one do not agree with that assessment. What is your assessment of that article?

Answer. My assessment is that Fort Polk is a great place to train. First, let me start by saying that there has been no decision yet to increase the capability of the 2nd ACR by turning it into a "heavy ACR." Fort Polk is an integral part of the Army's training as evidenced by our continued support of that installation with the Joint Readiness Training Center (JRTC). However since its transition to the JRTC, the post is now better suited to train our Light and Special Operations Forces as opposed to our heavy and mechanized forces.

MILITARY OPERATIONS URBAN TERRAIN (MOUT)

Question. I would like to commend the Army for its design and implementation of Phase I of the Military Operation Urban Terrain (MOUT). Is there anything we can do to help the Army implement this valuable realistic training system?

Answer. Current plans call for the MOUT Phase II project to start in fiscal year (FY) 1998. Phase II will significantly enhance the Army's MOUT training effectiveness at the Joint Readiness Training Center (JRTC). Phase II completes the MOUT site's instrumentation with audio-visual devices, position location sensors, enhanced targetry, and more realistic battlefield effects throughout the site. It also will connect the MOUT site's instrumentation into the JRTC's overall maneuver area instrumentation system. MOUT Phase II estimated cost is $44.4 million. However, this is a budget matter for the future since we are not prepared to begin any significant modifications in FY 97.

LOGISTICS AIRCRAFT COSTS

Question. Please provide the OP20 for all logistic aircraft (both OSA and SSA) for FY1993 to FY1996. Break out Active vs. Reserve Aircraft. Please provide a cost per year by Type/Model/Series.

Answer. The Army is not required to prepare the OP20 report; this is a Navy report only. Instead, the Army is required to prepare the OP20D report, which does not differentiate between operational support airlift (OAS), service support aircraft (SST) or logistics versus non-logistics aircraft. The report differentiates between fixed and rotary wing aircraft only because that is the way the Army manages its flying hour program. Additionally, the Reserve Components separately provide the Office of the Secretary of Defense with their own reports that are similar to the OP20D. Copies of the Army's OP20D reports covering FY93-FY96 follow:

ACTIVE ARMY

Aircraft	Avg. No. aircraft	Utilization rate	Flying hours	Hourly cost			Total	Annual cost			Total	BBL's of fuel
				Fuel	DLR	Other		Fuel	DLR	Other		
FISCAL YEAR 1993												
AH–1CNF	....	....	505	58.0	1,584.0	206.0	1,848.0	29,290	799,920	104,030	933,240	998
OH–58ACC	....	....	1,306	15.0	185.0	101.0	301.0	19,590	241,610	131,906	393,106	653
OH–58ACD	....	....	61	15.0	185.0	101.0	301.0	915	11,285	6,161	18,361	31
UH–1HC	....	....	266	52.0	394.0	120.0	566.0	13,832	104,804	31,920	150,556	475
UH–1HD	....	....	5	52.0	394.0	120.0	566.0	260	1,970	600	2,830	9
TOTAL RW	....	....	2,143	29.8	541.1	128.1	699.1	63,887	1,159,589	274,617	1,498,093	2,166
C–12	83	.85	48,197	72.3	....	....	72.3	3,486,554	....	....	3,486,554	120,495
C–20	4	.81	2,198	375.0	....	....	375.0	824,250	....	....	824,250	33,493
C–21	1	.77	617	100.0	....	....	100.0	61,700	....	....	61,700	2,938
DHC–7	2	.29	2,154	388.0	....	....	388.0	835,752	....	....	835,752	6,154
OV/RV	67	.65	14,223	104.5	683.7	191.5	979.6	1,485,594	9,724,350	2,723,552	13,933,496	50,459
RC–12	30	.80	15,598	57.2	346.2	11.8	415.2	892,480	5,400,486	183,690	6,476,656	37,881
RU–21	18	.59	5,550	61.0	441.0	15.0	517.0	338,550	2,447,550	83,250	2,869,350	11,761
U–21	45	.75	17,128	51.0	....	....	51.0	873,352	....	....	873,352	29,363
TOTAL FW	250	.75	105,665	83.3	166.3	28.3	277.9	8,798,232	17,572,386	2,990,492	29,361,110	292,544
AH–1	338	.89	49,154	57.4	1,338.5	160.8	1,556.8	2,823,850	65,794,537	7,904,775	76,523,162	97,138
AH–64	513	.93	83,950	78.6	2,096.1	348.4	2,523.1	6,596,565	175,970,566	29,248,202	211,815,333	223,866
CH–47D	258	.87	43,699	233.7	1,250.5	246.2	1,730.4	10,211,716	54,646,040	10,758,684	75,616,440	342,962
NTH	....	....	....	....	....	....	....	....	....	....	....	....
OH–58	751	.90	156,293	15.2	146.3	70.4	232.0	2,376,560	22,869,717	11,010,713	36,256,990	78,150
OH–58D	178	.76	29,428	23.9	1,080.9	118.0	1,222.8	704,361	31,808,359	3,472,463	35,985,183	23,122
UH–1	957	.88	241,423	49.3	240.6	67.7	357.6	11,899,408	58,078,655	16,348,287	86,326,350	431,114
UH–60	683	.90	138,641	75.1	721.3	181.4	977.9	10,416,897	100,001,542	25,151,729	135,570,168	363,107
UH–60L	93	1.28	17,017	75.0	802.7	232.7	1,110.5	1,276,275	13,659,696	3,960,630	18,896,601	44,568

ACTIVE ARMY—Continued

Aircraft	Avg. No. aircraft	Utilization rate	Flying hours	Hourly cost			Total	Annual cost			Total	BBL's of fuel
				Fuel	DLR	Other		Fuel	DLR	Other		
TOTAL RW	3,771	.89	759,605	61.0	688.3	142.0	891.2	46,305,632	522,829,112	107,855,483	676,990,227	1,604,027
TOTAL AC	4,021	.87	867,413	63.6	624.3	128.1	816.0	55,167,751	541,561,087	111,120,592	707,849,430	1,898,737
FISCAL YEAR 1994												
C–12	88	.98	52,458	81.6	....	....	81.6	4,279,230	....	....	4,279,230	131,149
C–20	4	.94	3,381	476.0	....	....	476.0	1,609,356	....	....	1,609,356	51,520
C–21	1	.95	758	162.0	....	....	162.0	122,796	....	....	122,796	3,610
DHC–7	4	.85	6,380	388.0	....	....	388.0	2,475,440	....	....	2,475,440	18,229
OV/RV	44	.91	13,977	115.0	861.4	166.3	1,142.8	1,607,355	12,040,473	2,325,037	15,972,865	49,585
RC–12	40	1.06	22,826	70.9	258.8	28.7	358.4	1,618,920	5,907,160	654,080	8,180,160	55,435
RU–21	17	.92	5,694	68.0	289.0	32.0	389.0	387,192	1,645,566	182,208	2,214,966	12,066
U–21	37	.96	17,422	55.6	....	....	55.6	968,290	....	....	968,290	29,866
TOTAL FW	235	.97	122,896	106.3	159.4	25.7	291.5	13,068,579	19,593,199	3,161,325	35,823,103	351,460
AH–1	246	1.01	37,267	62.1	1,086.7	173.8	1,322.6	2,313,766	40,498,590	6,477,594	49,289,950	73,646
AH–64	455	1.02	95,772	82.7	1,919.4	357.3	2,359.3	7,917,456	183,822,604	34,219,510	225,959,570	255,393
CH–47D	241	.98	44,830	255.3	1,178.1	367.1	1,800.5	11,445,124	52,814,336	16,457,714	80,717,174	352,124
NTH	....	1.01	8,244	55.0	50.0	27.0	132.0	453,420	412,200	222,588	1,088,208	23,554
OH–58	675	.99	155,748	16.0	117.1	84.5	217.7	2,496,666	18,243,022	13,164,615	33,904,303	77,878
OH–58D	147	1.06	38,384	25.7	1,402.1	174.0	1,601.8	984,806	53,818,411	6,679,240	61,482,457	30,159
UH–1	833	1.05	234,518	54.0	196.7	53.7	304.3	12,656,108	46,124,101	12,593,398	71,373,607	418,782
UH–60	610	.98	139,423	84.4	856.0	209.6	1,150.0	11,772,192	119,349,895	29,220,445	160,342,532	365,156
UH–60L	191	1	28,992	84.0	1,023.9	276.2	1,384.1	2,435,328	29,684,366	8,008,826	40,128,520	75,932
TOTAL RW	3,398	1.02	783,178	67.0	695.6	162.2	924.8	52,474,866	544,767,525	127,043,930	724,286,321	1,672,624
TOTAL AC	3,633	1.01	906,074	72.3	622.9	143.7	838.9	65,543,445	564,360,724	130,205,255	760,109,424	2,024,084

FISCAL YEAR 1995												
C–12	88	1.00	53,400	78.0	....	....	78.0	4,165,200	....	....	4,165,200	133,500
C–20	4	1.00	3,600	476.0	....	....	476.0	1,713,600	....	....	1,713,600	54,857
C–21	1	1.00	800	162.0	....	....	162.0	129,600	....	....	129,600	3,810
DHC–7	6	1.00	7,680	388.0	....	....	388.0	2,979,840	....	....	2,979,840	21,943
OV/RV	27	1.00	11,750	111.0	1,351.8	217.9	1,680.7	1,304,250	15,883,250	2,560,300	19,747,800	41,684
RC–12	42	1.00	23,440	76.0	235.0	43.0	354.0	1,781,440	5,508,400	1,007,920	8,297,760	56,925
RU–21	10	1.00	3,240	66.0	235.0	43.0	344.0	213,840	761,400	139,320	1,114,560	6,866
U–21	37	1.00	16,430	54.0	....	....	54.0	887,220	....	....	887,220	28,166
TOTAL FW	215	1.00	120,340	109.5	184.1	30.8	324.4	13,174,990	22,153,050	3,707,540	39,035,580	347,751
AH–1	188	1.00	28,705	59.6	1,190.0	190.8	1,440.4	1,710,702	34,158,124	5,477,982	41,346,808	56,726
AH–64	472	1.00	88,218	78.4	2,371.9	332.1	2,782.4	6,919,332	209,246,298	29,295,996	245,461,626	235,247
CH–47D	209	1.00	42,054	244.4	1,116.6	301.1	1,662.1	10,276,435	46,958,200	12,662,165	69,896,800	330,347
NTH	....	1.00	41,720	55.0	50.0	27.0	132.0	2,294,600	2,086,000	1,126,440	5,507,040	119,200
OH–58	530	1.00	128,966	15.9	137.7	91.6	245.3	2,051,280	17,758,645	11,819,600	31,629,525	64,484
OH–58D	243	1.00	49,530	25.5	1,791.5	184.6	2,001.7	1,264,380	88,734,880	9,142,530	99,141,790	38,917
UH–1	726	1.00	185,012	54.2	139.6	59.8	253.6	10,030,860	25,819,590	11,064,270	46,914,720	330,378
UH–60	510	1.00	118,586	81.2	1,120.3	212.0	1,413.6	9,633,688	132,850,369	25,143,385	167,627,442	310,582
UH–60L	281	1.00	42,740	82.0	1,269.7	244.9	1,596.6	3,504,680	54,268,940	10,465,700	68,239,320	111,939
TOTAL RW	3,159	1.00	725,531	65.7	843.4	160.2	1,069.2	47,685,957	611,881,046	116,198,068	775,765,071	1,597,820
TOTAL AC	3,374	1.00	845,871	72.0	749.6	141.8	963.3	60,860,947	634,034,096	119,905,608	814,800,651	1,945,571
FISCAL YEAR 1996												
C–12	37	1.00	22,200	92.0	....	....	92.0	2,042,400	....	....	2,042,400	55,500
C–20	1	1.00	900	476.0	....	....	476.0	428,400	....	....	428,400	13,714
C–21	....	....	....	....	....	....	....	....	....	....	....	....
DHC–7	7	1.00	11,520	388.0	....	....	388.0	4,469,760	....	....	4,469,760	32,914
OV/RV	27	1.00	9,100	131.0	985.8	185.0	1,301.8	1,192,100	8,970,500	1,683,600	11,846,200	32,283
RC–12	40	1.00	34,050	83.4	266.9	28.1	378.4	2,838,210	9,088,650	956,700	12,883,560	82,693
RU–21	10	1.00	3,240	78.0	285.0	30.0	393.0	252,720	923,400	927,200	1,273,320	6,866

ACTIVE ARMY—Continued

Aircraft	Avg. No. aircraft	Utilization rate	Flying hours	Hourly cost			Total	Annual cost			Total	BBL's of fuel
				Fuel	DLR	Other		Fuel	DLR	Other		
U–21	10	1.00	4,250	63.0	....	....	63.0	267,750	....	....	267,750	7,286
TOTAL FW	132	1.00	85,260	134.8	222.6	32.1	389.5	11,491,340	18,982,550	2,737,500	33,211,390	231,256
AH–1	147	1.00	24,476	68.5	906.0	167.9	1,142.5	1,677,321	22,174,778	4,110,592	27,962,691	48,368
AH–64	416	1.00	94,491	92.1	1,829.6	358.7	2,280.4	8,699,558	172,883,713	33,892,117	215,475,388	251,976
CH–47D	209	1.00	38,008	286.3	1,090.9	362.6	1,739.7	10,880,850	41,461,150	13,781,050	66,123,050	298,557
NTH	157	1.00	77,715	55.0	50.0	27.0	132.0	4,274,325	3,885,750	2,098,305	10,258,380	222,043
OH–58	296	1.00	106,082	17.9	100.4	74.9	193.2	1,896,174	10,648,542	7,945,335	20,490,051	53,042
OH–58D	290	1.00	61,050	29.6	1,201.0	170.3	1,400.9	1,805,610	73,322,386	10,396,728	85,524,724	47,968
UH–1	350	1.00	129,017	56.8	168.2	51.4	276.4	7,324,614	21,702,751	6,632,815	35,660,180	230,389
UH–60	512	1.00	112,693	94.5	794.0	206.5	1,095.1	10,646,688	89,483,542	23,274,988	123,405,218	295,149
UH–60L	334	1.00	54,580	96.0	962.1	273.6	1,331.7	5,239,680	52,509,520	14,935,060	72,684,260	142,948
TOTAL RW	2,711	1.00	698,112	75.1	699.1	167.7	941.9	52,444,820	488,072,132	117,066,990	657,583,942	1,590,440
TOTAL AC	2,843	1.00	783,372	81.6	647.3	152.9	881.8	63,936,160	507,054,682	119,804,490	690,795,332	1,821,696

DEFENSE BUSINESS OPERATIONS FUND (DBOF)

Question. Do you have any Reserve personnel being reimbursed from the DBOF?

Answer. No. There are no Reserve personnel being reimbursed from the DBOF.

STATUS OF 4TH SQUADRON, 2ND ARMORED CAVALRY REGIMENT

Question. What is the status of the transfer of the 4th Squadron, 2nd ACR and H Company 159th Aviation Intermediate Maintenance/Aviation Unit Maintenance (AVIM/AVUM) to Fort Polk?

Answer. The 4th Squadron (Regimental Aviation Squadron), of the 2nd Armored Cavalry Regiment, and H Company 159th AVIM/AVUM are currently located at Fort Bragg, NC. Both units are scheduled to move to Fort Polk, LA during August 1997.

JAVELIN VS SUPERDRAGON

Question. Please provide a comparison of Javelin versus Superdragon. Include as a minimum, range, lethality, cost, pertinent operational characteristics.

Answer. The Javelin system is a manportable, fire and forget, day/night/adverse weather antitank missile essential for Army early entry forces. Javelin will defeat all currently known and postulated armor threats. Javelin takes the fight to the enemy. Unlike conventional wire guided missiles, such as Dragon, or laser beamrider missiles, Javelin automatically guides itself to the target after launch which significantly improves gunner survivability. With its soft launch design, Javelin can be easily fired from inside buildings or covered fighting positions. Javelin will replace Dragon beginning in June 1996.

Superdragon is a proposed upgrade to the current Dragon system. It does not meet the Army requirement for an Advanced Antitank Weapons System-Medium. While Superdragon increases the missile range from 1000 to 1500 meters, it still falls short of Javelin's range of 2000 meters. Superdragon adds a precursor to the Dragon warhead which defeats most reactive armor, but will still not penetrate the front glacis of modern battle tanks. Unlike Javelin's fire and forget technology, Superdragon still relies on antiquated wire guided technology which fully exposes the gunner to lethal fires. Finally, Superdragon's effectiveness remains severely degraded due to the use of active protective systems on the battlefield which have little or no effect on Javelin.

The chart below provides a detailed comparison between the two systems.

	JAVELIN	SUPERDRAGON
RANGE	2000M	1500M
FIRE/FORGET	YES	NO
TOTAL SYS WEIGHT (LBS)	49.5	77.7
GUNNER SURVIVABILITY	HIGH	LOW
ATTACK TYPE	DIRECT OR TOP	DIRECT
LETHALITY	HIGH	LOW
SOFT LAUNCH	YES	NO
COST*	$74,671	$22,250**

*Contractor Unit Cost in FY96 Constant dollars

** Contractor estimate

FOOD STAMPS

Question. How many soldiers are on food stamps? Provide a table showing total receiving food stamps, and number eligible, by paygrade for the last five years.

Answer The Army does not have soldier food stamp eligibility and participant data for the previous five years. Based on USDA guidelines, the soldiers most likely to be eligible for the food stamp program are soldiers in pay grades E1-E4 with an unemployed spouse and family size of four or more living on or off post in the United States. Of the 83,900 married soldiers in pay grades E1-E4, there are approximately 47,000 whose households include a total of 76,300 children. The unemployment rate among junior spouses is 44 percent. Based on this information, an estimate for fiscal year 1995 is that 21,000 Army households could have been eligible for the food stamp program.

OPERATING TEMPO

Question. In your statement, you stated that "It is hard to predict when Operating Tempo (OPTEMPO) will effect retention of quality soldiers, but the time may be closer." but you did not have any proof to what extent. I would suggest that by the time we have concrete proof to the extent that OPTEMPO is effecting retention that it will be too late. Do you agree with this assessment?

Answer. Retention is constantly monitored for potential problems at the Military Occupational Specialty (MOS) level. This is done through a series of in-depth briefings conducted monthly at the Deputy Chief of Staff for Personnel (DCSPER) and Personnel Command levels. Additionally, specific analysis is done monthly on the most frequently deployed MOS. Any downward trends are evaluated and corrective action taken. Currently OPTEMPO/PERSTEMPO has not negatively effected retention. I agree with the Secretary of Defense in his report to the President and Congress where he stated that current PERSTEMPO of the force as a whole is both sustainable and healthy, and that there is no evidence that the current PERSTEMPO has significantly affected morale, retention, or readiness.

REENLISTMENT RATES

Question. What are your first and second term re-enlistment rates for the last ten years?

Answer. Initial Term (first enlistment) and mid-career (re-enlisted at least once before with 10 years or less service) retention rates percentages from Fiscal Year (FY) 1986 through 1st Quarter Fiscal Year 1996 are listed below:

FY	Initial Term	Mid-Career
FY96 (through 31 Dec)	46.0%	68.5%
FY95	45.6%	72.8%
FY94	49.2%	73.8%
FY93	46.1%	75.6%
FY92	30.7%	62.5%
FY91	41.4%	72.0%
FY90	40.7%	74.6%
FY89	48.6%	81.6%
FY88	39.9%	78.3%
FY87	36.5%	70.6%
FY86	36.5%	68.3%

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

BRADLEY FIGHTING VEHICLE UPGRADE

Question. I understand that approximately 1,600 existing Bradley A2s will be "remanufactured" into A3s. Is that work considered "core" workload? Please explain the rationale for the Army's position.

Answer. The upgrade or conversion of 1,602 Bradley A2s into A3s is not considered to be a core workload issue. There is some amount of A2 I/RON (inspection/repair only as necessary) work expected as part of the conversion process. However, the A3 upgrade program is considered to be a remanufacturing effort since the upgrade process requires vehicle modification, component integration, assembly, and test.

Question. How much of that work will be done by the private sector, and how much will be done in the Army depots?

Answer. The Army has not fully determined how this work will be distributed. United Defense Limited Partnership (UDLP) is scheduled to do the remanufacturing portion of the Bradley Upgrade program, however, workloading for the I/RON effort is currently being studied by the Army. The Army sent a Bradley A3, I/RON scope of work to both UDLP and Red River Army Depot and has received cost estimates back from both. The estimates are now being analyzed to determine which proposal is the most economical and provides best value to the government. A decision is expected in 3rd quarter, 1996.

Question. Does Red River Army Depot have the capability to upgrade the Bradleys?

Answer. Red River Army Depot is not able to remanufacture Bradley A2s to A3s at this time. Red River Army Depot is not configured/certified and the workforce is not qualified to conduct the remanufacturing effort.

Question. Is the Army prepared to allow Red River Army Depot to compete for any part of the Bradley Upgrade program?

Answer. Red River Army Depot is competing for the Bradley A3, I/RON effort with UDLP.

Question. Has the Army compared the cost of upgrading the Bradleys at Red River Army Depot and the cost of doing the work elsewhere?

Answer. This is currently being done with the I/RON cost estimates that were received from UDLP and Red River Army Depot.

CORE WORKLOAD

Question. What is the definition of "core" workload? What steps are required to define a system as "core" or "non-core?"

Answer. Core is defined as the organic depot maintenance capability, to include personnel, equipment, and facilities, maintained by the Department of Defense as the ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements. The OSD-approved method for determining whether a system is "core" or "non-core" involves first selecting only those mission critical weapons systems scheduled for deployment in the Joint Chiefs of Staff (JCS) 2-Major Regional Contingency (2-MRC) scenario for consideration for retention as a core depot maintenance capability. Weapons systems not required by the JCS 2-MRC scenario are considered as "non-core." Next the 2-MRC scenario is modeled using known attrition factors, predicted battle damage, and estimated use of the weapons system. The estimated number of each weapons system requiring depot repair and overhaul is multiplied by the average time for each skill needed to complete the maintenance for each weapons system. This results in the estimated total workload (in direct labor hours and by skills) based on the scenario. The next step involves converting this estimated total workload requirement into a peacetime depot maintenance requirement. The next step, the most critical one, is the assessment of the private sector capabilities. If the capability associated with the weapons system's depot maintenance requirement is needed to support the Service's core capability requirements, this system is designated as "core." If the capability is not needed to support the core capability requirements, this workload is designated as "non-core" and a risk assessment is conducted to determine if maintenance sources exist in the private sector. The workload will be eligible for competition in the private sector if the assessment determines that the private sector can provide the required capability with acceptable risk, reliability, efficiency and the best value. Adjustments for economy and efficiency are applied to keep the required minimum core support from being exorbitantly and prohibitively expensive.

Question. Is it the Army's position that no part of "core" workload can be performed by the private sector.

Answer. Yes. Title 10, United States Code, Section 2464, prohibits the contracting of core logistics functions unless the Secretary of Defense waives the requirement on the basis that such work is no longer required for national defense reasons. However, it may be possible to privatize any workload above that quantity needed to support the core capability requirement.

M113 MAINTENANCE

Question. Is M113 maintenance "core" workload? If so, please provide me a copy of the relevant Army regulations or documents.

Answer. Yes. The M113 is one of the weapons systems comprising the Army's Critical Items List of equipment required in support of the JCS 2-MRC scenarios. Because the M113 is required in support of the JCS 2-MRC scenarios, combined with the application of the core capability requirements process, results in this workload being designated as core workload. The core capability requirements are updated biennially. There is no Army regulation which designates the M113 depot maintenance as "core" workload.

Question. At today's hearing you said that M113 work cannot be privatized in-place and must be transferred to Anniston Army Depot because it is "core" workload. What is the legal justification for your contention that all M113 core workload must be done at government depots?

Answer. Title 10, United States Code, Section 2464, prohibits the contracting of core logistics functions unless the Secretary of Defense waives the requirement on the basis that such work is no longer required for national defense reasons. Depot maintenance on the M113 is part of the Army's core capability requirement.

Question. Is it not true that some M113 work is already being done by the private sector?

Answer. M113 work being accomplished within the private sector is a system upgrade to the M113A3. This work is not depot maintenance workload by definition or the current Office of the Secretary of Defense (OSD) policy. A May 4, 1994, memorandum from the Deputy Secretary of Defense stated "major modifications and upgrades to increase the performance envelope of systems are not by definition part of depot maintenance core. The government has traditionally obtained development and manufacture kits for modifications and upgrades from the private sector. The Defense Science Board Depot Maintenance Task Force concluded that major modifications and upgrades should be primarily accomplished in the private sector." The M113A3 configuration adds to the existing system an upgraded engine and transmission, armored external fuel tanks, internal spall suppression, and optional bolt-on armor. Programs are currently underway to modify the M113A2 to the M113A3 by United Defense under a contract won as part of the FY 93 Department of the Army Public-Private Competition Program.

Question. Why can't 40 percent of M113 core work be done by the private sector in accord with Section 2466 of Title 10 of the United States Code?

Answer. Section 2466 prohibits a Service from contracting out more than 40 percent of the total depot maintenance funds made available to that Service during the fiscal year. It does not override the requirement outlined in Section 2464 that all core work be performed by Government personnel.

Question. Has the Army done any analysis of the cost of doing M113 maintenance at Anniston compared to the cost of having it done by the private sector, including privatizing-in-place? If so, please provide me a summary.

Answer. Because the M113 was designated a core system, the depot maintenance must be performed in a government depot and no analysis has been done on performing the work in the private sector.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

INVENTORY MANAGEMENT

Question. I am dedicated to reducing wasteful spending in all federal agencies, including the Department of Defense. There are some specific cases of waste that the GAO recently uncovered. Several GAO reports have indicated that there is a serious problem with inventory management in the Department of Defense. There are 20-year or even 100-year supplies of some items. The cost of storing overstocked items ranges from $100 million to $1 billion per year. What has the Army done to address this issue?

Answer. The Army cannot address DOD-wide inventory problems. What we can tell you is that we have recognized the new challenges to our traditional ways of doing business. The Army is using the Total Army Inventory Management Program (TAIM) to control and manage our inventory. Since fiscal year 1991, the Army has reduced its wholesale secondary item inventories by almost $4 billion with a concurrent reduction in real growth of almost 32 percent. This is due to an aggressive campaign to remove excess stocks from our inventory. The Army Materiel Command, our executive agent, has set challenging goals for its inventory control points through a variety of initiatives aimed at reducing on-hand inventories while keeping new inventory to a minimum.

CONTRACT MANAGEMENT

Question. The General Accounting Office has also reported that the Department of Defense has problems managing its accounts. For instance, contractor overpayments and underpayments waste millions of taxpayer dollars each year. What has the Army done to improve contract management? How is the Army applying the best practices of private industry?

Answer. We are assisting the Defense Finance and Accounting Service (DFAS), which makes the majority of payments for the Army, in the development of policy, procedural and systems changes which should correct the causes of overpayments. Additionally, the Army Financial Management and Acquisition Communities are working closely with DFAS to assure the recoupment of overpayments applicable to the Army. Commercial business practices applied in the contractor payment process include utilization of Electronic Data Interchange (EDI) and the VISA credit card. Our major weapon contract writing system has developed EDI capability using American National Standards Institute X12 convention standards. This effort will link our contract writing system with DFAS' contractor payment system thereby eliminating errors in accounting and finance data created by redundant keypunching. The Army is also the largest user of the VISA credit card for purchases and payments in the Federal Government. In FY 1995, the Army made over 921,000 purchases with the card at a value of $426 million. Use of the VISA credit card simplifies the acquisition process and assures prompt payments to contractors.

ROCK ISLAND ARSENAL

Question. Although Rock Island Arsenal (RIA) is located in Illinois, about half of its employees live in Iowa. Thus, I am deeply concerned about any changes at the Arsenal, and I appreciate the efforts the Army has made to keep me apprised of those changes. However, there are several outstanding issues on which I need additional written information.

I understand there are several reductions in force (RIF) planned at RIA for fiscal year 1997 (FY 97). Please provide me with a detailed list of the proposed RIFs, including the number of people affected and the reason for the RIF.

One RIF calls for the removal of 220 people due to a reduction in the Ammunition Operation and Maintenance Account. My office first became aware of the RIF from a flood of constituent calls and letters. It was only after a briefing was demanded by the Iowa and Illinois delegations that the Army gave any explanation. Would you please make sure we are informed of your plans so that we can respond to our constituents.

Answer. We are currently offering voluntary early retirement authority (VERA) and voluntary separation incentive pay (VSIP) to avoid anticipated involuntary separations. If this is successful, the need for RIFs is diminished.

Question. Last year, Congress specifically added money to this account at the request of the Army. Why and to where have the funds been redirected? Please explain your current priorities in these areas and why they have changed from last year.

Answer. Congress approved $388,599,000 for Ammunition Management in FY 95 and this amount was executed by the Army at that level of funding. The FY 96 appropriation conference report directs that of the funds provided, the Army shall expend not less than $300,853,000 for Conventional Ammunition Care and Maintenance. The confusion seems to be within the piece parts of this line. Within Ammunition Management are two pieces - Stockpile Management and Toxic Chemical Munitions management. The Army Materiel Command recognizes the importance of these programs and has currently distributed $255,471,000 for Stockpile Management and $67,455,000 for Toxic Chemical Munitions management for a total of $322,926,000. In addition, $1,840,000 has been distributed to U.S. Army Pacific for Stockpile Management.

Question. Please provide an analysis of the potential savings and reductions based on maximum use of VERA and VSIP without involuntary separation over the next three fiscal years.

What will be the average age of the proposed workforce after the RIF?

Please provide an analysis of 'collateral' mission impact due to the proposed RIF. All functional areas at the Industrial Operations Command (IOC) will be affected by the personnel shuffle. The impact on the Ammunition portion has been assessed, what about the impact on the rest of the IOC?

Answer. We do foresee the need for reductions in strength in late FY 96 and during FY 97 at Rock Island Arsenal. These reductions are still in the planning stages. We are currently offering VERA and VSIP to avoid anticipated involuntary separations. You will be informed as soon as any reductions in force are approved for activities located at Rock Island.

QUESTIONS SUBMITTED TO GEN. DENNIS J. REIMER

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

HOUSING ALLOWANCE

Question. I am concerned that service members living off-base pay too much of those housing costs themselves--on average, about 20%. Does the Army view increasing the housing allowance as a top priority?

Answer. The Army is very concerned about our housing problem in general. We consciously decided not to plus up the basic allowance for quarters (BAQ) in 1997. We chose to take a more holistic view of the housing problem. In the past, one office had responsibility for the allowance portion and another office had responsibility for on-post housing (30 percent of our people). We are attempting to combine all of these resources into one office. A question that faced us was, "Does it make sense to close the gap one more percentage point, or does it make better sense to put those funds into base housing?" Our decision was to put money in base housing and hold the DoD-wide absorption gap for off-post housing at 19.6 percent for 1997 and determine what to do in the future. We are not diverting money away from housing, we are simply addressing housing in a different way.

RESERVISTS SERVING IN BOSNIA

Question. I understand that the Army has approximately 3800 reservists mobilized in support of the Bosnia deployment. What kind of missions are these soldiers performing and how are they contributing to the Army's operations in Bosnia.

Answer. The Reserve Component soldiers deployed in support of operations in Bosnia perform Combat, Combat Support and Combat Service Support missions. They are providing staff augmentations to the European Command Headquarters, Implementation Force (IFOR) Headquarters as well as US Army Europe (USAREUR) Headquarters and other subordinate commands. The headquarters augmentation in support of operations in Bosnia includes a wide variety of individual military skills from the Reserve Component. Types of Reserve Component units include: Adjutant General replacement and postal, medical, finance, transportation, military police, public affairs, psychological operations, civil affairs, engineer and field artillery. In addition to supporting operations in Bosnia, Croatia and Hungary, reservists are providing individual replacements for Active Component units in Germany. This "backfill" replaces Active Component soldiers deployed to Bosnia, allowing USAREUR to maintain the operational tempo for units remaining in Germany. Finally, Reserve Component units providing augmentation to installations in the United States were instrumental in deploying other reserve units through mobilization stations enroute to the theater.

ROLE OF RESERVE COMPONENTS

Question. It appears that Army reservists and Guard personnel have played a significant role in support of Bosnia. How will this impact on the way the Army configures forces for future contingency operations?

Answer. The Army does an independent analysis of its role in every contingency operation. Throughout this case-by-case process, we consider the Army's Total Force, both Active and Reserve Components, when developing our contribution to the contingency force. The good support and high level of performance of Reserve Component forces in Bosnia serves to reaffirm our Total Force analysis concept as the correct approach for evaluating the requirements of contingency operations. The vital role the Reserve Component forces are playing in Bosnia also underscores our dependence on these forces both in war and peace. The current level of personnel tempo is sustainable only due to the Presidential Selective Reserve Call-Up (PSRC) initiated for Bosnia. Absent PSRC, improved access to the Individual Ready Reserve, as is currently being considered by Congress, is essential to keep personnel tempo at sustainable levels.

ARMORED GUN SYSTEM (AGS)

Question. In reviewing your "unfunded priority list", I note that you did not include a request to reinstate the Armored Gun System production program. Would you tell the Committee why the Army has identified over $7 billion of unfunded priorities and not included the AGS?

Answer. The Army's decision to terminate the AGS program was based on operational and affordability considerations.

The requirement for which AGS was developed still exists. The Army requires a direct fire capability to support early/light entry forces. The system, or systems, to meet this operational need must be air transportable, provide mobile, protected firepower and an effective anti-armor capability. There are alternative means available to meet this requirement. The Army will perform this mission with currently fielded forces (Abrams and Bradley equipped forces), as well as by accelerating Javelin into early deploying forces. Additionally, the recent decision to procure 120 C-17 aircraft increases the capability to put armored forces into an airhead more quickly. In summary, even with the cancellation of the AGS, we will have the ability to provide direct fire anti-armor support to early/light entry forces.

Because of continuing budgetary pressures, the Army reviewed its modernization programs to identify systems which have alternative operational solutions, and therefore might be terminated to free-up resources for reinvestment into other high priority modernization programs. The AGS was a low density program (237 vehicles) and was costly ($6.5 million per vehicle). By terminating AGS, the Army will be able to reinvest approximately $1 billion over the next six years.

OUTYEAR FUNDING REQUIREMENTS

Question. There is a proposal to add $350 million to the Army's FY 1997 budget to use with prior year appropriated funds to buy 74 vehicles to meet the 82nd Airborne's needs. If Congress provides these funds, are there other outyear funding requirements that need to be addressed by the Army?

Answer. Yes. The Army has considered the proposed $350 million plus-up to the fiscal year (FY) 97 budget. In its review of the decision to terminate the Armored Gun System (AGS) program, the Army, in fact, assessed the potential for procurement of 80 AGS to meet the requirement for the 82nd Airborne Division's light armor battalion. This option was viewed as cost prohibitive, given the high per unit cost and the potential long term sustainment costs for such a low density system. The Army's decision centered on utilization of other assets to fulfill the valid requirement the AGS was developed to meet. With a FY 97 plus up, there would still be AGS outyear funding requirements to develop and procure training devices, repair parts for unit fielding, and test and diagnostic equipment, and to cover life cycle costs, which include modifications and upgrades inherent in any system.

MODERNIZATION BUDGET CONSTRAINTS

Question. General Reimer, are you concerned about the modernization budget constraints limiting the Army's ability to equip units other than Force Package One?

Answer. Yes. Current budget projections and fielding rates are of great concern. This is one of the reasons I have focused our efforts on finding additional dollars for modernization through initiatives and efficiencies. I expect to use the money saved to reinvest into the modernization accounts, allowing us to field more equipment, faster. We are also using a new modernization strategy, one that better focuses our efforts and will lead to a more modern force. In the short run, this strategy emphasizes investing dollars in buying out programs early and in buying at more efficient rates. It also sees a window of opportunity where we can accept some risk and focus our modernization efforts on full spectrum systems, such as C4I and soldier programs. Longer term, the strategy accepts the concept of a Core Force, that is the portion of the force which will receive the most modern equipment. Currently we are projecting this Core Force to consist of Force Packages One and Two, while Force Package Three will receive the critical command and control equipment necessary for full operability with the Core Force. The Army requires $14 to $16 billion annually in its modernization accounts in the Future Years Defense Program to fund them at a level commensurate with other Army programs. Funding for full recapitalization would require annual resources in the $15 to $20 billion range. We are only funded for approximately $11 billion in FY 97.

IMPACT OF FOCUS ON FORCE PACKAGE ONE

Question. General Reimer, will the Army's focus on Force Package One impact morale and reenlistment in other units or the ability of these units to fight effectively with Force Package One units?

Answer. Not at all. We have always fielded new equipment based on a First to Fight process. This means that there have always been units with the most modern equipment, while other units had relatively older equipment. Despite this, we have not had the kind of morale or reenlistment problems you suggest. The factors affecting morale are more closely linked to ensuring soldiers receive enough training and that funds go towards improving quality of life programs. The best way to maintain morale is to give the soldiers challenging training and to provide for their quality of life. As for the ability to fight with Force Package One units, we have maintained a commitment to ensuring that the critical command and control systems are fielded throughout the force. This is what delivers the capability to fight together, even when there are differences between the prime combat systems in two different units.

QUESTIONS SUBMITTED BY SENATOR MITCH McCONNELL

MACEDONIA

Question. Following up on my question in the hearing, can you explain the inconsistency between the President's representation that Macedonia is a combat zone, the Army manual on peacekeeping defining a combat chain of command from U.S. European Command (USEUCOM) to the Macedonia unit, Task Force Able Sentry, with a justification under Section 7 of the United Nations Participation Act and Chapter 6 of the UN Charter.

Answer. I do not believe there is any inconsistency with respect to the command and control arrangements for Task Force Able Sentry or the manner in which it is detailed to the United Nations. Let me begin by defining some terms concerning the "chain of command". The term "combatant command" or "unified combatant command" is statutory and designates a military command which has a broad, continuing mission and which is composed of forces from two or more military services. (10 USC 161). The unified combatant command which has the responsibility for the geographic area encompassing Europe is the U.S. European Command, or USEUCOM.

When CINC, USEUCOM received orders to deploy U.S. forces to Macedonia to participate in the UN mission there, he constituted, consistent with his statutory authority as a unified combatant commander under 10 USC 164, Task Force Able Sentry (TFAS). By direction of the President, pursuant to Article II of the Constitution and Section 7 of the United Nations Participation Act (UNPA), these troops have been detailed to the United Nations Preventive Deployment (UNPREDEP) in the Former Yugoslav Republic of Macedonia (FYROM). Section 7 of the UNPA authorizes the President to detail personnel of the armed forces to the UN as "observers, guards, or in any non-combatant capacity."

The fact that TFAS personnel are under the command of a unified combatant commander, CINC USEUCOM, in no way implies that they have a combat mission. As the theater CINC, he is responsible for the full spectrum of military missions assigned to him by the President. The U.S. chain of command for Task Force Able Sentry personnel thus runs from the Army Lieutenant Colonel commanding TFAS, through CINC EUCOM (a U.S. Army 4-star general), and, ultimately, to the President.

The manual to which you make reference, Army Field Manual 100-23 - Peace Operations - depicts, on page 23, the command structure for Operation Able Sentry. The Figure displays the command relationship between EUCOM and TFAS. Additionally, it reflects the fact that TFAS is under the operational control of the UN structure in Macedonia (formerly United Nations Protection Force - Macedonia (UNPROFOR-Macedonia, now UNPREDEP)).

As Commander-in-Chief, the President has both the constitutional and statutory authority to employ the armed forces in order to further U.S. national interests, to include the provision of assistance to the U.N. in the maintenance of international peace and security. In assisting the U.N., the President may, on a case-by-case basis, place U.S. forces under the temporary operational control (OPCON) of a U.N. commander. The chain of command between the President and his field commanders, however, remains inviolate, even when U.S. forces are OPCON to the U.N.

The concept of operational control does not authorize foreign commanders to modify the basic mission under which U.S. forces are assigned to a U.N. force or deploy U.S personnel outside the mission area. Foreign commanders may never separate U.S. units, nor may they administer discipline or otherwise exercise administrative control over the assigned U.S. forces. Accordingly, the UNPREDEP commander is only authorized to direct the day-to-day activities of TFAS within the scope of the mission previously approved by the UN and the U.S. government.

The command relationship has no impact on the nature of the U.N. operation. That is determined by the mission and mandate for the operation, which are set forth in the U.N. Security Council Resolution creating the operation. The U.N. operation in Macedonia, UNPREDEP, was established by the Council consistent with its authority under Chapter VI of the U.N. Charter and remains authorized under that portion of the Charter.

The sections of the U.N. Charter under which the Security Council acts to establish an operation reflect the nature of the proposed operation, and in particular, whether the operation is expected to require the use of force (other than in self-defense) and whether the host country has consented to the deployment. The authority of Chapter VII typically is invoked when an operation is not consented to by the State concerned and when it is foreseen that the operation may require a degree of force going beyond that required for self-defense. Where these circumstances are not present, the Council does not invoke its authority under Chapter VII and the operation is described as a "Chapter VI" operation. Hence, the absence of a reference to "Chapter VII" in a resolution authorizing or establishing a peacekeeping operation indicates that the operation is not considered by the Security Council to be an enforcement operation.

The mission of UNPREDEP is to report and monitor cross-border incidents between Macedonia and its neighboring countries, the Federal Republic of Yugoslavia (Serbia and Montenegro) and Albania. The mission was established at the request and with the consent of the government of Macedonia. UNPREDEP troops are equipped for self-defense only and perform a passive observer mission. Accordingly, TFAS conducts an observer mission aimed at deterrence of hostilities through reporting, rather than through confrontation.

Based upon the above mission, the President, in July 1993, provided notice to Congress of his intent to deploy U.S. Armed Forces in support of the U.N. mission in Macedonia. In this notice, the President informed Congress that the U.S. contingent would serve under the operational control of UNPROFOR-Macedonia, and would conduct missions as directed by the U.N. Commander. The President also noted that the U.S. forces would deploy with sufficient equipment to fulfill their peacekeeping mission and "...to defend themselves if necessary."

After determining that UNPROFOR-Macedonia was a Chapter VI peacekeeping mission, the President directed the deployment of U.S. military personnel in accordance with Section 7, UNPA and pursuant to his constitutional authority as the Commander-in-Chief.

Question. General Reimer, in your response to my question on the legality of the Macedonia deployment, you mentioned that U.S. Army Field Manual 100-23, which outlines the combatant chain of command in Macedonia, was out of date. If this is true, what field manual has replaced it and when was it issued? I would appreciate a copy of the new manual.

Answer. In my reference to FM 100-23 being somewhat out of date, I was referring to the fact that the chart indicating the combatant chain of command for TF Able Sentry did not reflect the organizational changes that have taken place since the publication of the field manual. Since publication, many units have been deactivated - in this case the Berlin Brigade. Consistent throughout, however, is the fact that the chain of command continues to flow from the US National Command Authority, through the unified command structure, down to the Task Force level. This reflects established US policy and doctrine, directing US commanders to retain command over all assigned US forces during multinational operations.

The intent of the original chart was illustrative in nature, and it continues to serve as a useful historical example of a notional command structure for a peace operation. At the current time, there is no plan to expedite the normal five year revision process for the field manual.

Question. How can the U.S. Army claim that Macedonia is a "maneuver area," and at the same time state that U.S. troops are "combat equipped," and Macedonia is a "potential combat zone?"

Answer. The combined UN operations in the Balkans were designed to bring stability to the region and to contain/prevent the conflict in Bosnia-Herzegovina from spreading into neighboring countries. The UN operation in Macedonia was created, at the request of the Macedonian government, to monitor its borders with Bosnia and to report any developments that could signify a threat to the territory of Macedonia. Although the peacekeepers in Macedonia previously had not encountered hostilities, the President, in his July

1993 notice to Congress, acknowledged the "potential" for spillover of hostilities into Macedonia. Based upon this "potential," U.S. forces deployed to Macedonia with a sufficient capability to both fulfill their peacekeeping mission and ensure adequate force protection. Thus, in a subsequent report to Congress, the President referred to these units as "combat-equipped".

As I indicated in responding to a previous question, although TF Able Sentry deployed with light weapons, armored personnel carriers and emergency helicopter lift, these capabilities are for self-defense only. They conduct an observer mission aimed at deterrence of hostilities through reporting, not confrontation. Their mission does not include enforcing the peace at the border or providing security for the FYROM.

As I also previously indicated, the President, in 1993, acknowledged the "potential" for spillover of hostilities into the FYROM. That is why U.S. forces deployed with sufficient self-defense capability. However, FYROM is not a "potential combat zone," nor has it been designated as a "combat zone" by the President.

Concerning the use of the term, "maneuver area." It is a general term used by the Army to describe tactical movement of forces in a prescribed area in order to accomplish a given mission, and does not, of itself, indicate that combat operations are being conducted.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

ARMORED GUN SYSTEM (AGS)

Question. The Department of the Army recently canceled the Armored Gun System, what are your plans for those units that were scheduled to receive that weapons system?

Answer. There were two units programmed to receive the Armored Gun System (AGS), the 2d Armored Cavalry Regiment and the 3-73 Armor Battalion (Airborne). There are options under review which include accelerating procurement of Javelin and fielding the system to early deploying forces. Additionally, the recent decision to procure 120 C-17 aircraft increases the capability to put armored forces into an airhead more rapidly.

BRADLEY FIGHTING VEHICLE

Question. How much does a Bradley Fighting Vehicle weigh?

Answer. There are now four different M2, Infantry Fighting Vehicles (IFV) and M3, Calvary Fighting Vehicles (CFV) in the Bradley series. These are the M2/M3A0, the M2/M3A1, the M2/M3A2, the M2/M3A2ODS. The fifth in the series, the M2/M3A3, is in development. Each of these vehicles has a different combat weight and the M2 IFV is slightly heavier than the M3 CFV.

The M2A3 is the heaviest vehicle of the series with an estimated combat-loaded weight of 65,500 pounds (32.75 tons) as determined by contractor weight/center of gravity studies in January 1996. The addition of Bradley armor tiles adds 7.200 pounds (3.6 tons) to the vehicles weight for a total of 72,200 pounds (36.35 tons).

Question. How many can be carried by a C-17?

Answer. A C-17 has a maximum gross payload capacity of 169,000 pounds (84.5 tons). It is capable of carrying two, fully combat-loaded M2A3s with Armor Tiles. No alterations to the vehicle are required other than standard airload considerations (reduced fuel load, radio antenna not mounted, etc).

TRAINING CENTER ROLES

Question. Is it a correct assessment that the roles the National Training Center and the Joint Readiness Center play in preparing our soldiers for combat have become more critical as our soldiers have been tasked with more and more tasks?

Answer. Our assesment is that these roles have always been critical. Our Combat Training Centers, as the Army's Crown Jewels of training, are the best places to focus on combat tasks and therefore their role in training our soldiers remains critical. As we continue to draw the Army down towards the end strength of 495 thousand and the national security environment continues to evolve, our soldiers are faced with an increasing variety of tasks, both in quantity and complexity. For example units deploying on Peacekeeping and Operations Other Than War (OOTW) missions must master a new set of skills in addition to maintaining their warfighting skills. Our Combat Training Centers -- the National Training Center at Fort Irwin, California, the Joint Readiness Training Center at Fort Polk, Louisiana, and the Combat Maneuver Training Center at Hohenfels Germany-- are critical in serving to ensure that units remain mission ready for combat and other operations.

JOINT READINESS TRAINING CENTER (JRTC)

Question. I understand that the Joint Readiness Training Center (JRTC) has a draft Land Use Requirements Study (LURS) that says additional land is required. Since the only Federal land that is adjacent to the Fort is a portion of the Kisatchie National Forest, what do you think about a transfer from the Forest Service to the Army as an option?

Answer. I think this is certainly a viable option. Fort Polk prepared a draft LURS that identified the need for additional 127,420 acres of maneuver training land for the JRTC. That LURS was returned to Fort Polk on 19 January 1996 for minor revisions that will clarify the land requirements. Fort Polk has completed the revisions and expects to release the revised draft LURS for U. S. Army Forces Command review in May. Fort Polk proposes to meet the largest portion of the land requirement by obtaining unrestricted maneuver use of portions of the immediately adjacent Kisatchie National Forest. The transfer of the Forest to the Army is one option that would meet the unrestricted maneuver use requirement. Fort Polk is required to prepare an Analysis of Alternatives Study (AAS) to explore all options to obtain land to meet the training requirements. That study will be initiated by Fort Polk after the Assistant Secretary of the Army (Installations, Logistics, and Environment) has approved the LURS.

JOINT SURVEILLANCE TARGET ATTACK RADAR SYSTEM (JSTARS)

Question. General, what capabilities does JSTARS bring to you as an operational commander, and how valuable will it be once it becomes fully operational? Are there any additional capabilities planned now that we have given it an operational test in the skies over Bosnia?

Answer. The JSTARS Ground Station Modules (GSMs) receive live moving target indicator and synthetic aperture radar information from the JSTARS E-8 aircraft and present this information to the ground commander. The GSMs also receive signals intelligence information from joint broadcast nets via an embedded Commander's Tactical Terminal and integrates that intelligence with the JSTARS data on a single screen. Additionally, when tactical Unmanned Aerial Vehicles (UAVs) are operating in an area of interest, GSMs can depict the UAV flight path and display live UAV video on the same screen. From the operational perspective, this capability allows for a single, common view of the battlefield, in near real time, to be shared by commanders from echelons above corps to brigade level. The GSM is operational now and its value is being demonstrated during Operation Joint Endeavor.

The GSM is the forerunner to the objective system - the Common Ground Station (CGS). This system, which will begin to be fielded in FY98, will have a variety of enhancements incorporated. Some important upgrades include direct receipt of UAV data, vice a hard wire interface to the UAV's Ground Control Station as we have now; the capability to receive national secondary imagery; the ability to interface into the Army aviation planning system; access to local and wide area networks; and incorporation of the Improved Data Modem which will allow the CGS to pass targeting and situational awareness information directly to Army command and control, scout, and attack aircraft. This is a valuable system to the Army with direct sensor-to-sensor and sensor-to-shooter links.

UNMANNED AERIAL VEHICLE (UAV)

Question. Now that you have had an opportunity to use the UAV in an operational environment, how useful is the information that you are able to obtain and process? What would you like to see for the UAV's future? What capabilities do you think should be planned in future versions?

Answer. The Military Intelligence Battalion (Low Intensity) (MIBLI) of the Army's Intelligence and Security Command, under the sponsorship of United States Atlantic Command, has operated the Predator UAV during the thirty-month Advanced Concept Technology Demonstration. The MIBLI's employment of the Predator UAV during support to Joint Task Force Provide Promise (July-October 1995) proved very successful. The information provided to joint force commanders by the unmanned platform assisted them in conducting situational development, target development, battle damage assessment, and force protection activities, while avoiding placing soldiers at risk.

We see great promise in the potential of the Predator UAV to satisfy our division and corps commanders' UAV requirements. Likewise, we have high expectations for the utility of this system to work in consonance with a brigade commander's UAV in support of tactical land operations.

Future UAVs will allow us to conduct mine detection operations, provide communications relay/node capabilities, and refine our reconnaissance and surveillance activities.

END STRENGTH

Question. In your prepared statement, you express concern that we may have taken down Army strength below an unacceptable level of risk, yet your unfunded requirements (wish list) does not include buying back end strength, why not?

Answer. The Fiscal Year (FY) 1997 budget request provides for 10 Active Component divisions and an Active Army end strength of 495,000. This represents the minimum force structure to be able to execute the National Military Strategy (NMS) at an acceptable level of risk. Reductions below 495,000 would have unavoidable readiness implications and our ability to execute the NMS would become problematic, particularly given our current operational deployments. At lower levels, the Army would , depending on circumstances, require more time and resources to win the conflict. For that reason, we feel that 10 Active Component divisions and an Active Army end strength of 495,000 is the right amount to execute the NMS. However, forestalling the modernization of this minimum force level greatly increases the risks in the future. The FY 97 budget reflects the Army's minimum requirement for modernization. Failure to modernize and update our equipment will put tomorrow's soldiers at risk.

TOOTH-TO-TAIL RELATIONSHIP

Question. What trend does the Army have in the tooth-to-tail relationship?

Answer. Since the end of the Cold War, combat support and combat service support (CS/CSS) force structure requirements have grown relative to combat force structure requirements. That increase is attributable to the fact that we face more contingencies outside of Europe, where our North Atlantic Treaty Organization (NATO) allies had signed formal Host Nation Support (HNS) agreements, which substantially offset U.S. Army CS/CSS force structure requirements. Army modeling of the two nearly simultaneous major regional contingencies assumes the availability of some Host Nation Support. However, relative to NATO Europe, the infrastructure in current major regional contingency (MRC) theaters is less developed and the few HNS agreements which do exist lack the specificity found in NATO HNS agreements. At the same time, our primary weapon systems have gotten more survivable, more mobile and more lethal. So they are heavier, but faster, and they consume more fuel. Similarly, they fire more accurately, but more rapidly, so they may consume more ammunition. The net result is an increase in U.S. Army CS/CSS force structure requirements relative to combat requirements.

RESERVE COMPONENTS

Question. I understand you have a requirement for more combat support/combat service support units at the same time you want to decrease the number of combat units in the guard and reserve. Is it your intention to change the mission of the guard and reserve to combat support/combat service support or merely keep cutting their end strength?

Answer. The Army's increased combat support/combat service support (CS/CSS) warfighting force structure requirements dictate that we change the mission of some Guard and Reserve combat units. A very clear example of this is the Army National Guard Division Redesign initiative, the purpose of which is to increase the warfighting utility of the National Guard Divisions by converting elements in some of them from combat units to CS/CSS units. Following approval and implementation, the proposed conversions will significantly enhance the capability of America's Army to execute the National Military Strategy.

OPERATIONAL SUPPORT AIRCRAFT (OSA)

Question. Regarding Operational Support Aircraft (OSA), how do you feel about single service ownership for aircraft?

Answer. The Army fully supports maintaining multi-service ownership of the OSA inventory. This will allow the Army, as well as the other Services, to fully support individual service specific Title 10 responsibilities within their own capabilities, retaining the greatest degree of service specific flexibility and responsiveness to support wartime, mobilization base and peacetime requirements. The Army remains dedicated to pursuing greater efficiencies with its OSA fleet through modifications to its organizational structure, employment methodology and balance between the Active Army, the Army National Guard and the United States Army Reserve.

SUBCOMMITTEE RECESS

Senator INOUYE. The subcommittee will stand in recess until Wednesday, May 1, and at that time we will receive testimony from the National Guard and Reserve component leadership on the fiscal year 1997 budget request.

Thank you very much.

[Whereupon, at 12:05 p.m., Wednesday, April 24, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 1.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, MAY 1, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Inouye, and Bumpers.

DEPARTMENT OF DEFENSE

RESERVES

ARMY RESERVE

STATEMENT OF MAJ. GEN. MAX BARATZ, CHIEF, ARMY RESERVE, DEPARTMENT OF THE ARMY

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, gentlemen. This morning the subcommittee will hear from two panels with the chiefs of each of the Reserve and National Guards components testifying on the fiscal year 1997 priorities.

We are going to begin this morning with the Chiefs of the Reserves, Major General Baratz, the Chief of the Army Reserve; Rear Admiral Hall, the Director of Naval Reserves; General McIntosh, Chief of the Air Force Reserves; and General Wilkerson, Commander of the Marine Forces Reserve.

This committee has long placed great emphasis on both the readiness and modernization requirements of the Reserve components and the results of these investments are now there for everyone to see, the tremendous performance of the Reserve and National Guard in every recent overseas contingency mission.

I think this is a substantial story of partnership between the Department and this subcommittee. We, unfortunately, have some recommendations for proposed deep cuts in force structures, civilian personnel support, and infrastructure support funding.

In partnership with my good friend here from Hawaii, we are going to try to address your priorities and we will have, I think, some pertinent questions for you today. I want to put your statements that you have provided us in the record. We will welcome your comments and the status of your forces and suggestions as to how we can help you.

Let me yield to the vice chairman, right now.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much. Gentlemen, I join my chairman in welcoming all of you here this morning. Every day the forces you command demonstrate their essential role as full partners in defending our Nation. So, too, your work in our States and communities, which sometimes goes unnoticed, is extremely important.

Today you are being called upon to absorb a larger part of our conventional missions and at the same time we see that your missions at the local level are also expanding. The work in disaster assistance during hurricanes, as well as your noble efforts to assist in the aftermath of the tragic bombing in Oklahoma, are constant reminders for us of the services you provide to our Nation.

Under these circumstances, we must be certain that you receive sufficient resources to meet your responsibilities. Recruitment and retention of highly skilled individuals becomes even more imperative today and, gentlemen, your forces must be able to achieve and sustain readiness while providing increased accessibilities.

So, I look forward, together with my chairman, to listening to your views and how best we can achieve these objectives, and I thank you very much. Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

PREPARED STATEMENT OF SENATOR BOND

I have a statement from Senator Bond that I would like to place in the record at this point.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CHRISTOPHER S. BOND

Thank you, Mr. Chairman, Generals, Admiral, thank you for coming before us today to provide us with your assessments of the state of our Guard and Reserve Forces and to discuss the fiscal year 1997 budget. As the Guard celebrates its 360th Anniversary of service and as a former Governor, let me say General Baca that you have certainly lived up to and honored the proud and illustrious heritage of the Guard through your leadership.

All of the services represented here today, have supported this nation in times of major conflict and in times of peace. You have provided the decisive combat forces when required and supported this nation's domestic needs through community service and local crisis response—and you have done this on a voluntary basis. Units from your services have participated in every major operation from long before Lexington and Concord through World Wars I and II through Korea and Vietnam and more recently in the Gulf War and current operations throughout the world. Even today, at this very moment—men and women—soldiers, sailors and airmen on a voluntary basis, in Latin America, Sinai, Central Europe and the Arabian Gulf performing a broad spectrum of missions both civil and military. They do this, as other units perform domestic missions deemed necessary by the Governors of their states or National Command authority.

We on this committee recognize that your services are an integral part of the defense forces of the United States even if other members of our government seem to have forgotten. I note with a sense of consternation that once again, the National Guard and Reserve procurement account as part of the President's budget is nonexistent. As co-chairman of the National Guard Caucus and as a member of this committee, I intend to insure that you receive the funding to maintain your high state of readiness and effectiveness.

I have a few specific questions which I would like to address to you as the hearing progresses concerning PAA of Air Guard units, Heavy Equipment Transporters, and I would like to draw attention to the fact that as the National Guard and Reserves become more and more integrated into the Operational plans and missions of the Defense Department, their equipment requirements need to be addressed. All of our soldiers, sailors, and airmen who serve in our armed forces and who face the same threats deserve to be equally protected and provided with state of the art arms and support equipment.

Again, I thank you and applaud your efforts in coordinating this country's legitimate citizen soldiers, sailors and airmen in the superb performance of their duties.

PREPARED STATEMENT

Senator STEVENS. Shall we proceed with you, General Baratz.

General BARATZ. Yes, sir, that would be fine. Let me say, sir, that we appreciate the past courtesies of the committee and the opportunity to appear before you today. My statement will be entered for the record, and I do not intend to enter a statement here today. But again, I want to thank you for everything you have done for us and will do for us in the future.

Senator STEVENS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. MAX BARATZ

Mr. Chairman and distinguished members of this committee, thank you for the opportunity to testify on behalf of the United States Army Reserve and the 575,000 men and women serving in units and as individuals, all part of America's Army.

Today we have soldiers and units deployed in five countries under the President's Selected Reserve call-up authority. In fiscal year 1996, we will also have additional soldiers and units deployed to 24 countries in support of other high priority missions that are not part of the Presidential call-up. In all cases, these community-based citizen-soldiers continue to perform their many and varied tasks with distinction. In order to sustain this type of performance, we must place unit readiness and quality of life for our soldiers and their families first.

The Army Reserve has taken several innovative actions to insure the most efficient and effective use of defense funding.

One of the strategies we have used successfully to advantage high priority units is the application of resources on a first-to-deploy/first-to-fight/first-to-resource premise.

We have made the transition from 20 continental United States ARCOM headquarters commands to ten Regional Support Commands.

We are developing a Reserve Associate Support Program in coordination with the active component that will provide increased training for drilling reservists. While in a training status, these soldiers will also assist the Army in meeting high priority combat support and combat service support personnel requirements.

We have participated with industry in several plans that will significantly reduce overhead administrative supply costs and lower basic maintenance costs.

We are implementing a program that will convert our paper personnel records to an optical format. The Personnel Electronic Records Management System (PERMS) allows automated, immediate, multiple-use access to personnel records.

The Army Reserve is implementing the Army's regionally based Total Army Schools System.

The Army Reserve has taken over the management of Forts McCoy and Hunter Liggett along with Camp Parks, assuming support for all USAR units within their respective geographical areas. Additionally, we are scheduled to take over Fort Dix in 1997. Fort McCoy, where all Army Reserve full time support accession training has been consolidated, is an example of a true success story.

SUMMARY

The Army Reserve continues to be a full partner in America's Army, contributing an economical, cost effective force that leverages the American people's technical expertise and dedication to their country and the national defense.

The Army Reserve is committed to give the American taxpayers the best value for their investment in supporting our national military strategy.

BIOGRAPHICAL SKETCH OF MAJ. GEN. MAX BARATZ

Major General Max Baratz was confirmed by the Senate as Chief Army Reserve, on May 24, 1994. As Chief, Army Reserve, General Baratz serves as the principal adviser to the Chief of Staff, Army on Reserve matters. As Commander of the United States Army Reserve Command, he controls all Army Reserve forces assigned to the United States Atlantic Command.

General Baratz was born in Aurora, Illinois on November 11, 1934. He earned an AB in political science and an ROTC commission from Syracuse University in 1956. He is a graduate of the Infantry Basic and the Engineer Advanced Courses. He is also a graduate of the Command and General Staff College and the Army War College. He began his active duty as a platoon leader with the 3rd Battalion, 18th Infantry at Fort Riley. He also served as commander of engineer units at the company, battalion, and brigade levels and ultimately as the commander of the 416th Engineer Command. General Baratz served on the Army Reserve Forces Policy Committee from 1984 to 1991 and as Co-Chairman and Chairman from 1987 to 1991. He returned to active duty during Desert Storm as Deputy Commanding General for Reserve Affairs at FORSCOM in 1990. The following year he became the Deputy Commanding General, United States Army Reserve Command, a position he held until becoming Acting Commander on January 21, 1994. He had served as Acting Chief, Army Reserve, on from February 7, 1994 until his confirmation.

General Baratz's awards include the Distinguished Service Medal, Legion of Merit, the Meritorious Service Medal (with two clusters) and the Army Commendation Medal.

Prior to returning to active duty, General Baratz was Executive Vice-President of Billings, Inc. and a member of the Midwest Stock Exchange. He is married to the former Carole Ann Bogage, and they have two sons and a daughter.

NAVAL RESERVE

STATEMENT OF REAR ADM. THOMAS F. HALL, DIRECTOR, NAVAL RESERVE

PREPARED STATEMENT

Senator STEVENS. Admiral Hall.

Admiral HALL. Mr. Chairman, it is my honor to appear before this committee for the fourth time. I appreciate very much what you, your colleagues, and staffs have done for our Reserve components. The Naval Reserve continues strong, 98,000 strong, in all 50 States. We are increasing our contributory support, seamless integration with the active Navy. We think we are making a difference in reducing PERS and OPTEMPO.

We have a few problems. We are looking forward to adequate funding in the out-years and we are concerned about recruiting and retention of good people, and that is the one area that we will put a lot of emphasis on in the forthcoming year.

Thank you for the opportunity to appear before the committee.

[The statement follows:]

PREPARED STATEMENT OF REAR ADM. THOMAS F. HALL

On any given day, approximately 25 percent of the Navy is forward deployed, and 50 percent of our ships are at sea. These operations, as well as over 2,200 Active shore commands, rely increasingly on Naval Reservists to help fulfill their missions. The use of Naval Reservists represents sound utilization of a national resource and acknowledges the wealth of experience and commitment resident in the Naval Reserve. As the Navy has downsized, and reliance on the Naval Reserve has increased, it has become an inextricable part of Naval presence. To be successful, force structure and operating standards have to accommodate this relationship. Identical training, integrated equipment, and compatible platforms are the standards for the Naval Reserve Force. These standards, founded in the Total Force Policy, have seamlessly integrated the Navy.

A properly structured, trained, and equipped Reserve Force is able to provide valuable, cost-effective Contributory Support to the Fleet while, simultaneously, maintaining mobilization readiness for rapid call-up for crisis response anywhere in the world. In fiscal years 1994 and 1995, Reservists provided 1.3 and 1.7 million man-days, respectively, of Contributory Support to the Active forces. This will increase again this year, and mobilization readiness will be maintained. By capitalizing on opportunities during any period of Contributory Support to complete or maintain mobilization requirements, the Naval Reserve is achieving unprecedented levels of support to the Fleet while maintaining the highest levels of mobilization readiness. Maximizing support to the Fleet, while also maintaining readiness, has become our focus and benchmark. This was evident in the Roles and Missions Study of the Naval Reserve and in our ongoing review of appropriate expanded Roles and Missions.

In 1994, the Honorable Deborah Lee, Assistant Secretary of Defense for Reserve Affairs, chaired the Congressionally-mandated Roles and Missions Study, "The Future Naval Reserve," reviewing the status of the Reserve Force. Fourteen recommendations on new responsibilities for the Force came out of the study, ten of which have been implemented. Recognizing the benefits and potential of this process, we have continued to investigate and pursue additional initiatives to maximize Contributory Support opportunities and further the seamless integration of the Naval Reserve. The following is a review of the status of those recommendations and initiatives.

ROLES AND MISSIONS STUDY RECOMMENDATIONS

Naval Reservists will make up the repair departments and support the medical, dental, supply, and communications departments of two category B (Ready Reserve Force) tenders (repair ships), if and when the ships are mobilized to provide battle damage assistance in theater or along U.S. coasts as needed to support two major regional conflict scenarios.

Status.—Over 1,800 Selective Reservists (SELRES) have already been detailed to fulfill this recommendation. The Repair Department Selected Reservists will receive their training at several existing Shore Intermediate Maintenance Activities or aboard Active Force Tenders. The Medical, Dental, Supply (less food service) and Communications Department Selected Reservists will train aboard Active Force Tenders, at SIMA's and at Medical/Dental Treatment Facilities.

Improve the Naval Reserve's intra-theater airlift capability through improvement of the C–9B aircraft.

Status.—The C–9B is approaching obsolescence for avionics, and will require new engines to meet world-wide noise reduction requirements. These updates and replacements will be required within five years and will be expensive. The average aircraft age is 20 years with the oldest aircraft at 28 years. The structural service life is projected to be 38 years (corrosion dependent). Some upgrades are funded, and plans for replacement aircraft or major modifications are being considered.

Increase the Naval Reserve's participation and capability in surface mine countermeasures.

Status.—Avenger (MCM–1) and Defender (MCM–2), the first two of four mine countermeasure ships have transferred to the NRF. Sentry (MCM–3) and Champion (MCM–4) will transfer this year. Coastal mine hunter Heron (MHC–52) transferred to the NRF in July 1995. The Inchon (MCS–12) has also joined the Naval Reserve. Mine countermeasures will continue to be a significant area for Reserve contribution.

Completely integrate the Active and Reserve air mine countermeasures.

Status.—Integration of HM 15 (Active) and HM 19 (Reserve) has been completed. The new integrated squadron, HM 15, will relocate to Corpus Christi in spring-summer 1996. In Norfolk, integration of HM 14 (Active) and HM 18 (Reserve) was completed in March 1995. Each squadron has twelve aircraft, six provided by the Active component and six provided by the Reserve component. Command of these squadrons will rotate between Regular Navy officers, for two consecutive command tours, and a Naval Reserve officer, either a Selected Reservist or a Full-time Support (TAR) officer, every third tour.

Increase the Naval Reserve's capability and participation in airborne electronic warfare.

Status.—Two enlisted maintenance augmentation units to support the two Active force squadrons are funded and being formed.

Use of the Seabees in support of the Army for chemical and biological warfare decontamination as it relates to operations in littorals.

Status.—This concept has been adopted, and the overall timetable for funding, logistics and equipment transfer, and training is being developed. Two Selected Reserve units have been established to augment Active support of this mission.

Increase the Naval Reserve's capability and participation in integrated undersea surveillance systems.

Status.—A three-fold increase in Selected Reserve end strength has been dedicated toward increased participation in this mission. Reservists have been assigned to sites in Dam Neck, VA, and Whidbey Island, WA. This is an ideal mission for the Naval Reserve.

Increase the Naval Reserve's role as the adversary fleet training readiness group.

Status.—The Naval Reserve now provides 100 percent of the adversary training for the fleet through VFC 12 at Naval Air Station Oceana, VA, VFC 13 at Naval Air Station Fallon, NV, and three additional Reserve squadrons from Reserve Carrier Air Wing 20. These five squadrons will fly 15,000 required hours each year in support of this mission. VFC 13 has replaced its 12 F/A–18 aircraft with 25 F–5 aircraft to accomplish this mission.

Increase the Naval Reserve's contribution as adversary fleet training readiness group to the Fleet Information Warfare Command.

Status.—The Naval Reserve provides EP–3J aircraft (2,000 hours/year) and EA–6B aircraft (400 hours/year) in support of Fleet Information Warfare Command as Command and Control Warfare Group Opposition Forces in anti-air electronic warfare.

Provide increased airborne early warning capability in the counterdrug mission.

Status.—On 1 Oct. 1995, VAW 77 (Reserve) was established at Naval Air Station Atlanta, GA, and will assume the counter-narcotics (CN) mission of VAW 122 (Active) upon its disestablishment in March 1996. VAW 77 will conduct counter narcotics operations, normally two 60-day periods, in support of CN operations in the Caribbean. VAW 77 will have its first drug deployment in the summer of 1996.

Create a pool of U.S.-based aviators to enhance fleet deployed squadrons at the outset of a major regional conflict.

Status.—Two F/A–18 Fleet Replacement Squadron (FRS) augment units have been established, manned with twelve pilots and 60 enlisted personnel. The units are designed to provide increased through-put of personnel through the training squadrons, in peacetime and in war, to assume the instructor and aircrew responsibilities vacated by the Active personnel as they forward deploy.

NEW INITIATIVES BEYOND ASD(RA) NAVAL RESERVE ROLES AND MISSIONS STUDY

The Naval Reserve will support an amphibious enhancement plan to provide the vehicle lift capability for 2.5 marine expeditionary brigades.

Status.—In support of amphibious lift requirements, two Tank Landing Ships (LST) have been transferred to the Naval Reserve Force (NRF) and homeported in Pearl Harbor, HI, and Little Creek, VA. Additionally, four LST's have been placed in a Reduced Operating Status (ROS), each supported by a Naval Reserve augment unit to support the reactivation of the ship. Also, a total of five Amphibious Cargo Ships (LKA) have been placed in ROS status, with Reserve augment units. Approximately 700 Selected Reservists are part of this plan.

Expand logistics capabilities with additional Reserve C–20 and C–130 aircraft culminating in two C–20 detachments and four C–130 squadrons.

Status.—A C–20 squadron has been established at Naval Air Facility Washington, DC, with a detachment at Barbers Point, HI. Last year, they provided 2,600 flight hours of high speed medium lift. Our four C–130 squadrons flew 10,000 flight hours for outsized heavy cargo lift, providing year-around C–130 support in the Mediterranean and one-half year support in the Western Pacific.

The Naval Reserve will maintain an operational carrier for training and surge capabilities.

Status.—USS *John F. Kennedy* (CV–67) became an Operational Reserve Carrier (ORC) in October 1995. This Carrier will deploy on six-month Mediterranean cruises as a "gap-filler" in fiscal year 1997 in the CV/CVN deployment rotation schedule. Additionally, this Carrier will be used for training and will provide the necessary surge capability, with Active or Reserve Airwings, in the event of crisis response.

JFK will regularly participate in routine Fleet exercises, carrier qualifications (CQ), and battle group training.

Increase the opportunities for selected reservists, living in other countries, to participate in the OUTCONUS Drilling Program.

Status.—Initiated in October 1994, this program permits Selected Reservists residing overseas to provide contributory support to the OUTCONUS commands to which they would mobilize. Approximately 91 Selected Reservists are participating in this program with continued growth expected.

Increase Naval Reserve participation in coastal warfare.

Status.—With the continuing focus on littoral warfare, the Naval Reserve is structuring units to provide port security and harbor mine countermeasure operations at forward locations. 435 Selected Reservists have been assigned to these units.

Utilizing the Naval Reserve model, increase the role of the centralized credentialing and privileging activity (CCPA).

Status.—CCPA in Jacksonville is a central repository of credentialing, documentation and the sole authority for credentialing Naval Reserve health care practitioners (physicians, dentists and nurse practitioners). The CCPA concept has become so successful it is being converted into a combined Active and Reserve databank, and the Army has decided to adopt the Navy model in late fiscal year 1997.

Increase Naval Reserve participation in the helicopter range support mission.

Status.—Upon decommissioning of two Active HC squadrons, HC 85 assumed all of the torpedo targeting and recovery responsibilities for the Southern California Operating Area. In its first year of operation, HC 85 flew over 2,400 hours of contributory support for Commander, Third Fleet at the Southern California Offshore Range. On the East coast, HS 75 also provides numerous detachments in support of CV operations in the Atlantic Area of Responsibility (AOR).

Increase the Naval Reserve's participation in sealift capabilities.

Status.—The Naval Reserve has filled the requirement which addresses a shortfall in the combat logistics arena for strategic sealift capabilities. Naval Reservists are training to provide underway replenishment and vertical replenishment teams to the Ready Reserve Force ships.

Increase the Naval Reserve's participation in mobile ammunition logistical support.

Status.—Lessons learned from Operation Desert Storm and war games identified a need for a surge capability for onload deliveries of ordnance overseas. Twelve Mobile Ammunition Support Component (MASC) units have been established to provide capabilities for the onloading and offloading of ordnance in forward bases, as well as performing receipt, storage, segregation and integration functions.

These examples of the seamless integration of the Naval Reserve are a result of a shift in paradigm dictated by the realities of the changing world order and fiscal reductions. We acknowledged these realities, made the shift, and the results are evident and positive. Although, these changes were challenging, they have resulted in increased support to the Active component, high levels of readiness, and stability for the Naval Reserve. We now must maintain this support, readiness, and stability.

Maintaining stability, through the turn of the century, is the goal of the Naval Reserve for the future. Our success at maintaining overall stability will depend on the stability within four areas, or the four pillars of the Naval Reserve: personnel, equipment, facilities, and funding.

PERSONNEL

The first pillar in maintaining stability is personnel. In the past four years, the Naval Reserve Force has been making reductions in Naval Reserve end strength in an orderly and measured manner, by shedding excess capacity no longer required by the changed international conditions and new world order. Using the information gleaned from various processes, including the Bottom-Up Review, the Naval Reserve Roles and Missions Study, the Total Force war game, and fleet exercises, the Navy and Naval Reserve engineered an aggressive program to draw down the Reserve. This process not only achieved the desired end strength, but also assured that the proper mix of personnel would be resident in the Naval Reserve to provide mission-capable units and individuals to the Navy-Marine Corps Team throughout the full range of operations from peace to war.

The drawdown is about 96 percent complete, with a desired personnel end strength range of about 96,000–100,000 and the proper personnel mix. This achievement returns stability to the area of personnel structure.

EQUIPMENT

The second pillar to maintaining stability is equipment. The Naval Reserve needs state-of-the-art equipment to maintain its readiness and to be able to provide the maximum levels of Contributory Support. With such a large percentage of Naval Reserve personnel having had prior service experience, almost 90 percent, the logical step to effective combat readiness and mobilization effectiveness is fleet compatible equipment.

The force structure for fiscal year 1996 is comprised of 35 squadrons, 20 ships, and 55 various other hardware units. In fiscal year 1997, we will decommission one VP squadron, add four MHC's (Coastal Mine Hunter) to the NRF, and maintain our 55 other hardware units. The Naval Reserve would rank as the fourth largest Navy in the world and is operating state-of-the-art equipment that is fleet compatible. To maintain compatibility and stability, we must continue to modernize/integrate upgrades and program replacements. Whether in use for training, exercises, or actual operations, fleet compatible equipment is essential.

FACILITIES

The third pillar in maintaining stability for the Naval Reserve through the turn of the century is facilities. As part of the drawdown, it was clear that the infrastructure and overhead costs needed to be brought in line with desired personnel end strength levels. The Base Closure and Realignment Commission (BRAC) processes have reduced the number of Reserve centers, air stations and regional headquarters supporting the Reserve forces in the field. However, we will continue to operate Reserve Centers in all 50 states, with adequate facilities in which sailors will work and train. The challenge is to maintain and operate these facilities in the most efficient manner possible.

The Military Construction and Real Property Maintenance Programs must be resourced to assure readiness, quality of life, and environmental and safety compliance are maintained. The drop in funding levels, which started in fiscal year 1993, was a conscious decision to defer investment below the level required for long-term sustainment of the shore infrastructure because of the uncertainties of force structure drawdown and BRAC. These are now behind us, and we must now focus on meeting the cost of ownership for the core infrastructure which remains. This restoration of funding levels represents prudent cost efficient facilities management.

BUDGET

The final pillar in maintaining stability for the Naval Reserve is the budget. There must be adequate funding to maintain the levels of Contributory Support the Active component has requested and the Naval Reserve is capable of delivering. Funding for training, readiness, and support to the CINC's in their daily missions, is essential to maintain the shift in paradigm from the Cold War era crisis response, to today's seamless integration of the One Navy Team.

As in the active force, while the number of Reserve personnel has been declining to reach desired end strength levels, the demand for our people continues to grow. This will continue, and Naval Reservists will be needed for extended periods of time beyond normal training obligations. Modern, fleet compatible equipment must be available to the Naval Reserve Force to ensure employability. Requested funding levels for facility management are needed, to continue to improve and maintain existing infrastructure. In sum, whether it is for Contributory Support, personnel, training, equipment, or facilities, adequate funding is needed to ensure stability, and every dollar spent must have a definitively measurable return on investment.

CONTRIBUTORY SUPPORT

The Naval Reserve continued to provide unprecedented levels of Contributory Support to help meet the operational requirements of the Active Forces. During fiscal year 1995, the Naval Reserve provided over 1.7 million mandays of direct support. In addition to augmenting the capabilities of the Active Forces, Naval Reservists perform many of the missions required only during times of a national emergency. Many of these missions are unique to the Naval Reserve Force. Whether augmenting the Active component, or providing support resident only in the Naval Reserve, each of the Naval Reserve's varied communities provides some level of Contributory Support for the Navy. The following are some examples of the types of support provided in fiscal year 1995 and the first half of fiscal year 1996:

—Ten of fourteen Naval Reserve Force (NRF) guided missile frigates made four to six month deployments worldwide to relieve fleet OPTEMPO and PERSTEMPO. NRF ships provided 236,535 mandays of support. Operations and exercises supported included counter narcotics operations (Caribbean and Southern California), UNITAS (South America), STRONG RESOLVE 95 (North Atlantic), CARAT 95 (Pacific) and BALTOPS 95 (Baltic Sea).

—VAQ 209 deployed for four months with USS *Theodore Roosevelt* (CVN 71) in support of Operation Deny Flight in Bosnia providing 33 percent of the electronic warfare assets and 3,016 mandays of support. Like their Active counterparts, VAQ 209 used High-Speed Anti-Radiation Missiles (HARM) against live hostile surface-to-air sites.

—In the wake of unprecedented Cuban and Haitian refugee influx, 130 Naval Reserve Seabees augmented their Active counterparts in Guantanamo Bay, Cuba, providing new construction for shelter, sanitary and messing facilities, as well as, roads and utilities. Additionally, Naval Reserve Seabees provided over 9,500 mandays of support at Naval Amphibious Base, Little Creek, VA. Projects included Bachelor Enlisted Quarters upgrades and completion of a Recycling Center. These projects yielded savings of $1.2 million and $700,000, respectively, in military construction; and completed projects that otherwise would not have been possible.

—Active component Fleet Hospitals, deployed to Guantanamo Bay in support of migrant operations and to Zagreb, Croatia in support of Bosnia; ten percent of the personnel assigned were Naval Reservists. Also, Naval Reserve dental personnel provided over $5.3 million in dental support (representing approximately 335,600 procedures), in Contributory Support to Active Navy personnel and family members.

—Fleet Logistics Support Squadrons continue to provide 100 percent of Navy Unique Fleet Essential Aircraft (NUFEA) Airlift to the Fleet CINC's warfighting capability. Over 431,000 mandays of worldwide support were provided in fiscal year 1995. The C–9's, C–130's, and C–20G's that perform this mission, provide critical, demand-driven, flexible response for all Fleet CINC airlift requirements.

—Naval Reserve Helicopter Squadrons participated in numerous operations and exercises including UNITAS 95, USS *Kennedy* carrier qualification (CQ) operations, Carrier Air Wing 14 (CVW 14) flight operations, target launch and recovery and torpedo recovery in support of Third Fleet, detachments deployed aboard two NRF frigates. HCS 4 is currently deployed aboard USS *George Washington* in support of Bosnia.

—Naval Reserve P–3C and E–2C squadrons provided almost 3,000 flight hours in support of counter narcotics (CN) operations in fiscal year 1995 and an 18 percent increase is projected for fiscal year 1996. These aircraft provide detection and command and control for interception. VAW 77, flying the E–2C, is the only fully dedicated CN squadron in the Department of Defense.

—Naval Reserve Intelligence Program personnel provided 565 mandays of support for the Bosnia Intelligence Task Force. These Naval Reservists provided direct support to SECDEF, CJCS, and deployed forces in, and in support of, Bosnian operations.

SUMMARY

There has never been a more rewarding, challenging and exciting time to be in the Naval Reserve. The Naval Reserve is an active partner and participant in the daily operational commitments of the Navy world-wide. The seamless integration of Active and Reserve components, plus the magnitude of Contributory Support provided to the Fleet, serves as a model for the force structure of the 21st century. As the Navy fulfills its part of America's National Military Strategy, the Naval Reserve is an inextricable part of that mission.

The Naval Reserve Force Strategic Planning Team has recently updated the Mission and Vision Statements for the Naval Reserve. These Statements reflect the Naval Reserve's commitment to the National Military Strategy and its reliance on seamless integration.

MISSION

The Naval Reserve provides mission-capable units and individuals to the Navy, Marine Corps Team throughout the full range of operations from peace to war.

VISION

The Naval Reserve is a highly trained, well equipped and fully accessible combat ready force with a world-class reputation for professional excellence. We are responsive and provide a broad range of cost-effective, adaptable military capabilities and civilian skills to fulfill mission requirements.

BIOGRAPHICAL SKETCH OF REAR ADM. THOMAS F. HALL

A native of Barnsdall, Oklahoma, Rear Admiral Hall graduated from the U.S. Naval Academy in 1963 and was designated a Naval Aviator in 1964. He holds a Master of Science degree in Public Personnel Management from George Washington University and is a distinguished graduate of the Naval War College and the National War College. He was selected for flag rank in 1987 and in August of 1991 was promoted to Rear Admiral (Upper Half).

His initial fleet assignment was with Patrol Squadron EIGHT, the first squadron to operate the P–3 Orion, and the first East Coast P–3 squadron to deploy to Southeast Asia. In 1968 Rear Admiral Hall returned to the U.S. Naval Academy and served as a Company Officer and Executive Assistant to the Commandant of Midshipmen. In 1972 Rear Admiral Hall reported to Patrol Squadron TWENTY-THREE where his duties included Training Officer and Officer in Charge of UNITAS XIV Air Detachment.

Following a tour at the Naval War College as a student in the Command and Staff course, Rear Admiral Hall reported to the Bureau of Naval Personnel. While in the bureau, his billets included Aviation Training Command Placement Officer, Aviation Staffs Placement Officer, Head of Air Combat Placement, and Assistant Head of Aviation Junior Officer Assignment.

Rear Admiral Hall reported to Patrol Squadron EIGHT in 1978 as Executive Officer and assumed the duties of Commanding Officer in March 1979. During this tour, the "Tigers" deployed to Rota-Lajes (Spain) where it was awarded the Meritorious Unit Commendation for deployed operations. He then entered the one year course of instruction at the National War College. He subsequently joined the staff of the Chief of Naval Operations where he served as Head of the Program Objective Memorandum (POM) Development section.

Rear Admiral Hall served as the Chief of Staff for Commander, Fleet Air, Keflavik/Iceland ASW Sector from June 1982 to June 1985. From August 1985 to July 1987, he served as the Commander, Naval Air Station Bermuda and Commander, Bermuda ASW Sector. Following his assignment in Bermuda, Rear Admiral Hall served as a member of the Chief of Naval Operations Strategic Studies Group (SSG). In September he assumed the duties of Deputy Director of the Naval Reserve in the Pentagon. In May 1989, Rear Admiral Hall became the 22nd Commander, Iceland Defense Force, based in Keflavik. Additional duties included Island Commander, Iceland; Commander, Fleet Air, Keflavik; and Commander, Iceland Sector Antisubmarine Warfare Group. Rear Admiral Hall assumed his present duties as Commander, Naval Reserve Force, Chief of Naval Reserve and Director of Naval Reserve on 12 September 1992.

Among his awards are the Defense Superior Service Medal, Legion of Merit (two awards), Meritorious Service Medal, Meritorious Unit Commendation and various unit and campaign awards. In July 1992, Rear Admiral Hall was awarded the Icelandic Order of the Falcon, Commander's Cross with star, by the President of Iceland.

Rear Admiral Hall is married to the former Barbara Ann Norman of Jacksonville, Florida. They have one son, Thomas David.

AIR FORCE RESERVE

STATEMENT OF MAJ. GEN. ROBERT A. McINTOSH, CHIEF, AIR FORCE RESERVE

PREPARED STATEMENT

Senator STEVENS. General McIntosh.

General MCINTOSH. Yes, Mr. Chairman, I am representing 73,000 reservists, about 61,000 in the unit program, and 12,000 as force Reserve individuals.

I am proud to be here today to talk about the fact that we have over 900 Air Force reservists involved in four different contingencies around the world, an additional 1,000 reservists involved today in various airlift, tanker, and fighter operations in support of the total Air Force.

I, too, want to express appreciation to the committee, particularly in the area of funding full-time manning and funding special equipment and also some additional aircraft buys. We have resource challenges, certainly, ahead of us. Some in RPM, real property maintenance, some in depot program repair, but overall, we are a healthy force. We have feasted off the downsizing of the active force and rely upon the experience level of the people leading the active Air Force to round us out and make us highly combat effective and capable.

It is a pleasure to be here.

Senator STEVENS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. ROBERT A. MCINTOSH

Mr. Chairman and members of the committee: Thank you for the opportunity to appear before you today. I am pleased to tell you that the Air Force Reserve continues to be a force of choice for the Air Force and the warfighting Commanders in Chief (CINC's) whenever an immediate and effective response is required to meet the challenges of today's world. We are ready in peace or war, available for quick response, and able to stay the course when called upon.

Our day-to-day involvement has increased markedly in recent years. The Air Force Reserve participated in 10 contingencies between 1953 and 1990. In the last five years, we have played a significant role in no fewer than 28 major operations. This is part of life in the Air Force Reserve and we are proud to do it. In every instance since Desert Storm, we have met these obligations with volunteers.

Although we are involved more now in the daily mission of the Air Force, the focus of the Air Force Reserve continues to be readiness—we train so that we will be ready to prosecute our wartime missions when we are needed. Our success in this endeavor is built around several key issues including proper resource allocation, strong support of our civilian employers, long-term investment in military construction, increased use of state-of-the-art training devices, modernization and upgrade of Reserve aircraft and equipment, and a continued emphasis on accessibility through volunteerism. These tenets, and the good people with whom we are blessed, are the tools that allow us to improve and adapt and to continue to be the yardstick by which other reserve forces are measured.

YEAR IN REVIEW

I would like to thank this committee and Congress for your continuing support. Like our active duty partners, the men and women of the Air Force Reserve are very busy. Trying to balance the demands of military service, family, and a civilian profession can be a demanding task, but ours is made easier by the support we receive from the American taxpayers, Congress, the Department of Defense and the Air Force.

Recent legislation marks a milestone of support for the Reserve Component. I think I speak for all the services when I say that your trust and support are well-earned and appreciated by every Reservist in uniform and their families. The recently passed national defense authorization act contained several important provisions. Mobilization income insurance allows Reservists to protect their standard of living by providing them the opportunity to buy insurance that would make up the difference between their civilian income and often significantly lower military pay if they are involuntarily recalled to active duty. We learned during Desert Storm that more Reservists than expected required dental work before being deployable. Many Reservists were either under-insured or had no insurance. The legislation you passed addresses this important readiness issue by authorizing an affordable dental insurance plan. Previously, Reservists were not eligible for disability and death benefits before sign-in and after sign-out during weekend drill periods; they were covered only during duty hours. Your legislation now provides this important benefit from the time a Reservist leaves his or her home to attend inactive duty for training until he or she returns at the end of the drill period. Air Reserve Technicians carry much of the day-to-day work load in Reserve units, including many of the overseas missions we fly in support of the Air Force. Flying these missions as civil service employees raised questions about their status in other countries. The fiscal year 1996 authorization act entitles military technicians to an additional 44 days of military leave for participation in noncombat operations outside the United States. This is important because it clarifies the status of some of our aircrew members and allows us to continue to meet operational requirements. Thank you.

We participated in five major contingencies in 1995 in addition to our normal training and operational support requirements. The end of the year found us preparing to support Operation Joint Endeavor, NATO's enforcement of the Bosnian peace accord. Although primarily an active duty mission, national leadership elected to exercise presidential recall authority for Joint Endeavor. It was agreed that the Air Force Reserve could meet its responsibilities through volunteers, just as we have in the past.

The number of Reservists on mandays in 1995 peaked during the third quarter when deployed Reservists, including IMA's, used nearly 100,000 mandays to support world-wide contingency requirements. On average, between 600 and 700 Reservists were deployed somewhere around the world on each day of 1995. Flying unit readiness improved throughout 1995 as units completed conversions. Nonflying unit readiness remained at a level above 90 percent throughout the year.

I like to think everything we do is good for America. Much of our training results in by-products that support or improve activities in the infrastructure of our nation. For example, the 53rd Weather Reconnaissance Squadron is mandated by Congress to provide weather reconnaissance support to the National Weather Service. The unit operates 10 WC–130's equipped with the Improved Weather Reconnaissance System and is the only such unit in the Department of Defense. They had a particularly busy year in 1995, flying more than 1,800 hours into 17 storms during a hurricane season we thought would never end. Then, just when we thought we were out of the woods, the country was blasted by a series of severe winter storms that required their attention as well.

The 757th Airlift Squadron, a C–130 unit from Youngstown, OH, has the only fixed-wing aerial spray capability in the Department of Defense. The unit worked closely with the Coast Guard in 1995 to validate effective aerial application techniques for oil dispersants over water and demonstrated this capability a number of times as part of a Coast Guard environmental disaster response program.

The Air Force Reserve is responsible for rescue missions in peacetime and during combat. The 939th Rescue Wing with its three HC–130 and HH–60 equipped rescue squadrons flew 43 rescue missions and saved 18 lives in 1995. They also provide NASA space shuttle launch and down-range support.

When I talk about the Air Force Reserve and the Total Force, I like to use the term "seamless." Wherever Reservists are supporting operational requirements, it's nearly impossible to find a margin between us and the active force. Together, we form a seamless piece of cloth that is bigger, stronger and more durable than that from which it is made.

We have gained a number of new missions in the last year, including the 919th's conversion from AC–130's to their new Combat Talon/Combat Shadow special operations mission, including the responsibility for training both active and Reserve MC–130E aircrews. It's important to note that we terminated a long-time Reserve mission in 1995—the AC–130 gunship mission at the 919th Special Operations Wing. The 919th provided fully one-half of the Air Force's gunship capability since July 1975. This mission change resulted from changes in Air Force requirements.

We also picked up space shuttle launch and recovery support, PACAF battle staff augmentation, associate AWACS, information warfare, and the KC–135 associate mission. Ongoing and announced conversions include trading F–16's for A–10's at New Orleans, building to 48 C–17's at Charleston, and the eventual bed down of 48 C–17's at McChord.

Reserve medical professionals joined forces in 1995 with their Guard and active duty counterparts in Mirror Force, a combined effort to optimize medical readiness by identifying issues of concern to the medical community, integrating plans and capabilities, and by managing change.

Contributions to the Total Air Force included our share of downsizing during the year. We experienced force reductions mandated by the Air Force as well as those resulting from 1995 BRAC actions. Our downsizing actions in 1995 were neither capricious nor arbitrary. They were carefully thought-out, well planned actions that met Air Force plans and force structure needs. The Reserve was not immune from personnel cuts during 1995. Forty high grade civil service positions were eliminated by Executive Order and approximately 5,000 other positions fell as a result of overall downsizing efforts.

We saw a number of changes in 1995 that made the Air Force Reserve a better and more cost effective resource. The 315th Airlift Wing began flying operational missions with the C–17. We also established our first KC–135 associate unit at McConnell AFB and announced plans to establish an associate AWACS unit at Tinker AFB. We assumed responsibility for the A–10 replacement training unit at Barksdale AFB and joined the Guard and active force in standing KC–135 combined alert.

Taking advantage of advances in technology, we increased the use of teleconferencing for meetings in 1995 and saved more than $8 million after our initial investment that otherwise would have been spent on travel and TDY expenses. High tech combat arms training devices saved money as well. Data indicate that using these state-of-the-art firing range simulators saved nearly $50,000 worth of ammunition, which is even more significant when the Reserve was allocated only 74 percent of our requirement for 5.56 mm ammunition and only 54 percent of the 9 mm ammunition we need for 1996.

If we are to continue to be mission capable and ready, we must continually upgrade and improve our equipment. A number of programs held our attention in 1995, but two were particularly important: enhanced electronic warfare capability and combat operations at night.

In today's world, Air Force fighters require improved jamming and self-protection capability in order to reach their targets and survive. Using the F–16 Electronic Warfare Management System, the Air Force Reserve will provide our fighters with an integrated radar warning, missile warning, chaff/flare capability through a single cockpit control panel. This will increase electronic warfare capabilities and reduce pilot workload over the target area.

We began modification of our F–16 fleet in 1995 to make interior and exterior lighting compatible with night vision equipment. We did this for about one-third the cost of similar conversions. As we become more heavily involved in operations at night, we plan to acquire enough night vision goggles to support our F–16, A–10, C–130 and HH–60 fleets. This will give us the lead in night mission capability.

We plan to modernize some of our global mobility assets. Our KC–135's are old airplanes, but they will be very capable for years to come. Some of their subsystems are not aging gracefully, however, and are in need of replacement. High on our list are new KC–135 auxiliary power units which replace obsolete and unserviceable equipment and keep the fleet flying. Because KC–135's also serve as airlifters, we will capitalize on their cargo hauling capability by acquiring specialized support equipment for cargo handling and maintenance. Engine upgrades for the Reserve HH–60 fleet will provide additional combat capability for rescue forces.

The Air Force Reserve gained a new base in 1995. Grissom AFB became Grissom Air Reserve Base as a result of 1993 BRAC actions. Because facility improvements were a major priority, we pursued funding adequate to meet the needs of our programs and worked to execute our funds in the year of the appropriation. MILCON requirements increased in 1995 because we converted some of our weapons systems, requiring facility changes and/or improvements at a number of locations. Appropriations of just over $57 million for our 1995 military construction program were an increase of some $28 million over our original request. We were supported during the fiscal year 1996 and fiscal year 1997 POM for several MILCON projects associated with new Reserve missions, but, by the end of the effort, $28 million in current MILCON funding was diverted to pay other essential bills. All in all, the Reserve was successful in executing our MILCON goals in 1995. Seventy-seven percent of our MILCON funds were awarded by the end of the fiscal year. We also had a great year in real property maintenance, obligating $42.9 million for sorely needed facility upgrade projects.

The Air Force Reserve continued to make significant strides in environmental programs by completing clean-up of two sites in 1995. Our greatest focus in 1995 was on pollution prevention. By the end of the year, six bases had fully implemented hazardous material pharmacies and every Reserve installation had a recycling program. We also reduced the use of environmentally threatening solvents and ozone depleting substances to below the 1996 Air Force standard. The ongoing conversion of Reserve KC–135E's to R models benefits the environment by reducing particulates released into the atmosphere by aircraft and support equipment exhausts and by a marked reduction in noise pollution.

READINESS

Readiness is the priority mission of the Air Force Reserve. Everything we do must contribute to this end. Although each of our missions is important, none is more important than readiness.

There is no question that the men and women of the Air Force Reserve are ready to carry out the missions we train for in peace and war. But readiness is not only about airplanes, weapons on target, or tons airlifted. It includes a number of other factors as well; many come from the human equation.

There would be no Air Force Reserve without the nearly 74,000 people who give it life. They are an extraordinary group of American patriots who understand and accept service to their country. They are typical of so many hard working Americans, both in uniform and out, who will do whatever the country asks of them—and ask little in return.

The Air Force Reserve compares favorably with other government agencies in the make up of our work force. Twenty percent of the force is made up of women, one quarter of whom are officers. Fifteen percent of the Reserve force is African-American; five percent is Hispanic. We are working to achieve an even better cross-section of America as we work to recruit the very best and brightest our country has to offer.

Currently, about 90 percent of the people joining the Air Force Reserve have prior military service. Many come to us directly from active duty, already trained and qualified in their career specialties. This saves valuable resources for more pressing needs. Actively recruiting prior service members is proving to be a cost effective way to meet a rising tempo of operations. However, we believe this important resource has peaked, and will decline to less than half of what it was. This will require us to refocus and increase our recruiting efforts. The inevitable increase in the number of people recruited who have no prior military experience will almost certainly make our recruiters' jobs more difficult and training more expensive.

While the men and women who wear Air Force blue are important, two other groups also require our support: our families and the employers of Reservists. As Reservists spend more time deployed away from home, we find that their families and civilian employers require an increasing amount of support from us. On average, four times as many Air Force Reserve people are deployed today as there were just seven years ago. Air Force Reserve leaders are concerned about the impact of high operations tempos on Reserve families. We find that the readiness and morale of a Reservist is linked directly to the morale of his or her family. Because Reserve families often are not part of the network of support that surrounds active duty bases and units, we have built a family readiness program specifically for the Reserve.

The Reserve Family Readiness Program provides information, referral, and follow-up counseling to our families during contingency operations or periods of mobilization. Family readiness centers at Reserve-owned bases are authorized full-time civilian specialists and units that are tenants on an active duty base will have additional-duty Reservists.

FAMNET, a global communication system, links Reserve family readiness centers with active duty family support offices to provide around the clock access during contingencies or crises. This system will soon link the reserve components together as well.

Most Air Force Reservists have careers separate from the military. Whether self-employed or working for someone else, a Reservist away from the work place means a loss of productivity and increased costs for employers. Overall, employers know a good thing when they see it and realize the value a Reservist brings to their organizations. Most are very supportive of their Reserve employees and are willing to make concessions to keep their good people. We are working to make hiring Reservists more desirable.

In a recent survey, more than 1,300 Air Force Reservists responded to questions about increased participation and how it affects their lives. Fully 90 percent were willing to volunteer for additional Reserve duty if it were limited to two weeks or less. About one third reported some degree of erosion in employer support. More than half said that their immediate supervisors have a favorable impression of the Air Force Reserve. Two thirds said they use vacation time for Reserve duty. The survey said that our people don't mind the extra work as long as it is productive and worthwhile.

To balance the books, we also surveyed a number of Reserve employers. This survey ended in early March. We are tabulating the raw data and plan to release our findings soon.

Like our sister services, the Air Force Reserve has been part of Department of Defense restructuring efforts for several years. After a number of organizational and mission changes, we continue to meet our commitments and train for mission accomplishment. The final round of Base Realignment and Closure Commission actions closed two Reserve facilities, Bergstrom Air Reserve Station near Austin and O'Hare International Airport Air Reserve Station in Chicago. Other Reserve units and facilities around the country will see an increase in missions and responsibilities as a result. I have no doubt that we will see additional changes in our force structure as we move into new mission areas such as AWACS and information management. Reservists will continue to experience a certain amount of turbulence as we move into the twenty first century, but I am confident that it will have little lasting impact on our readiness or mission accomplishment.

A significant percentage of the Air Force's wartime medical capability can be found in the Reserve. The most visible of our medical programs are our aeromedical evacuation units and the men and women of the 932nd Airlift Wing, Scott AFB, Illinois, who fly and maintain C–9 Nightingales. These medical professionals can be found everyday training and flying real-world aeromedical missions across the country and around the world.

Our program for health services professionals is a proactive effort to manage their sometimes unique professional and training needs. The recently published Medical Readiness Strategic Plan 2001 is a comprehensive update of Department of Defense medical readiness strategy and addresses a number of critical issues affecting medical readiness. The plan stresses the need for effective medical readiness training, citing a number of factors that detract from medical readiness, including a marked decline in medical exercises or participation by medical personnel in other exercises. The plan advocates strong reserve component medical participation in upcoming major exercises. We will make every effort to ensure that the medical community in the Air Force Reserve has the opportunity to participate in joint and service-specific exercises as long as resources are available. I strongly believe that field training is necessary for our medical people and intend to explore our options for good, taxing, and realistic training.

The Air Force Reserve is an essential part of the Quality Air Force of today. For some time, we have been an organization dedicated to quality. Quality is a prerequisite to successfully meeting the coming challenges of achieving a proper force structure, new missions, readiness, recruiting, deployments and the myriad other things that define our organization.

Our years of work in quality have begun to pay off; we have a number of success stories this year. At the 919 Special Operations Wing, Duke Field, Fla., the metals technology shop was too small for the equipment on hand and was a potential safety hazard. The shop staff tackled the problem and not only developed a floor plan that meets OSHA standards, but came up with more productive office procedures as well. The 919th then applied quality processes to track mishaps and personal injuries in the unit. After analyzing trends, they were able to reduce reportable mishaps by 75 percent.

The Air Reserve Personnel Center earned both the Denver Federal Executive Board Federal Agency Award for Outstanding Public Service and Vice President Gore's 1995 Hammer award for outstanding public service and for reinventing government by improving customer service, cutting red tape, empowering employees, and getting back to basics. And they did all this with an employee to customer ratio of 1 to nearly 1,000.

Reservists used the same quality processes at the 419th Fighter Wing, Hill AFB, Utah, to reduce the cost of stripping and painting an F–16 from $30,000 to about $7,000, for more than 75 percent savings. The 301st Rescue Squadron, Patrick AFB, Fla., saved $179,000 by acquiring 18 derelict lighting carts from the Defense Reutilization Marketing Office then rebuilding them to like new standards. The 934th Airlift Wing, Minneapolis-St. Paul IAP ARS, Minn., found they can save at least $25,000 a year by using a locally crafted ground trainer rather than an airworthy airplane for loadmaster training.

Stories like this abound in the Air Force Reserve. Quality and the unique skills and experiences of our Reservists make things happen that are good for the Reserve, the Air Force and the country.

ACCESSIBILITY AND VOLUNTEERISM

The mission of the Air Force Reserve is to provide combat-ready forces whenever needed. Originally intended for wartime augmentation, we now find that we are involved in military support of national objectives on a daily basis. There were times in 1995 when as many as a thousand Air Force Reservists were deployed around the world on any given day, supporting U.S. national objectives. Reserve aircrews continue to average more than 110 days of participation a year and support personnel participate at record levels as well.

On the occasions when the Air Force needed augmentation or the President exercised his recall authority, the Air Force Reserve met 100 percent of its obligations through volunteers. We have done this with great success since the end of the Gulf War. Volunteerism works for the Air Force Reserve and is the way we prefer to do business. We have proven that our forces are immediately accessible and ready to roll up their sleeves and go to work.

Our fighter, tanker, rescue, and airlift units supported operations in Bosnia, Iraq, Haiti, and elsewhere through rotations of volunteers. Reserve fighter crews and aircraft have been deployed overseas since the first of the year, along with our regular rotations of airlift and tanker support, flying missions in support of Joint Endeavor. All are volunteers.

Although our Reservists often find themselves working with their active duty counterparts at hot spots in all corners of the world, they are still Reservists. While they may share the same risks as their brothers and sisters on active duty, they often do not enjoy the same benefits. Volunteers are limited by law to no more than 179 days of participation per fiscal year. If a Reservist has 180 days or more participation in a fiscal year, he or she counts against Reserve full-time support end strength. This limits our ability to provide personnel for long periods of time to support the increasing tempo of operations around the world.

Because Air Force Reservists often are on active duty orders for less than thirty days at a time, neither they nor their family members are eligible for the same medical benefits as active duty forces if they are injured in the line of duty. It is reasonable to believe that if the risks are the same, the benefits should be the same.

FORCE MODERNIZATION

In today's total Air Force, it's not at all uncommon to find Air Force Reservists, their aircraft and equipment intermixed with assets from the active duty Air Force and the Air National Guard when deployed for operations such as Joint Endeavor. The wartime CINC's include the Reserve throughout their war plans and expect us to participate from the earliest stages. If we are to be truly interchangeable with the active force and equally effective and mission-capable, we must be equipped comparably to the components we support. It is easy to see the wisdom of this decision on ramps around the world, particularly at bases supporting Operation Joint Endeavor. Active duty, Air Force Reserve and Air National Guard crews and maintenance personnel routinely fly and maintain each other's equipment as they support the NATO mission in Bosnia. This would not be possible if the Air Force Reserve were not equipped with modern, first-line equipment, the same as the active force.

Guard and Reserve equipment funds, first provided in 1981, are dedicated to enhancing our combat readiness. We are true to the spirit of that legislation and spend this money to improve mission performance, survivability, interoperability, sustainment and, above all, readiness. Our goal is to ensure that when a Reserve unit deploys, we give the gaining commander the same capability and degree of mission accomplishment he would expect from an active duty unit. Because we enjoy your support, the Air Force Reserve has been able for a number of years to do exactly that.

Support requirements and supply systems become less complicated and more cost-effective when all the components of the total Air Force are equally equipped as they are now. Operational and sortie rates remain high because modern, first-line equipment usually is easier to maintain and offers a combat edge not found in older weapon systems.

Force modernization requirements are validated by the active Air Force. Our priority is to continually upgrade aircraft capabilities to maintain mission compatibility with the active force, including combat operations at night, precision munitions delivery, and integration into the modern digital battlefield. To meet this goal, we look hard for low cost solutions to meet these requirements with current, commercial, or other non-developmental strategies. Congressional support has allowed us to maintain an acceptable level of parity in critical areas such as airlift defensive systems; F–16 multi-task trainers; night vision lighting modifications for our F–16's, A–10's, and C–130's; and flare and chaff dispensing capability for the Reserve F–16 fleet.

Other priorities for the Air Force Reserve include precision guided munitions capability for our F–16's, improved avionics for Reserve F–16's and A–10's, C–130 cockpit improvements and night vision capability, KC–135R engine upgrade kits, and unit-level training devices for A–10 and C–130 fleet.

Probably our single largest contribution to the total Air Force lies in airlift. We fly a sizable percentage of Air Force C–130, C–141, C–5, and C–17 missions and provide airlift support with our tanker fleet as well. Much of this capability is centered in our C–130 Hercules fleet. Altogether, the Air Force Reserve flies more C–130's than any other type aircraft. Most are dedicated to theater airlift, including airdrop, tactical airland, combat resupply, aeromedical evacuation, and special missions such as aerial spray and fire fighting. Some are modified for specific missions such as weather reconnaissance and special operations. Congressional understanding of and support for the tactical airlift mission have resulted in constant modernization of the Reserve fleet since 1981. Twenty-eight of our Reserve C–130's dedicated to airlift are older C–130E's; the rest are newer H-models. All are subject to a number of modifications and upgrades including new autopilot and ground collision avoidance equipment, improved electrical system, global positioning system, and communication radios that will improve battlefield communications between C–130 crews, fighter aircraft, and ground forces. A radar upgrade to a state-of-the art, adaptable system will save approximately $125 per flying hour. Other modifications and improvements planned for Reserve C–130's will increase their combat effectiveness and longevity.

The Air Force Chief of Staff said recently that the single biggest requirement we have in the near term is replacing the C–141 strategic airlifter. There are now two operational C–17 associate squadrons at Charleston AFB, S.C. The planned procurement of 120 C–17's means that the Reserve units at McChord and Charleston AFB's will continue as C–17 associate units. As our C–141 Starlifters retire, the associate units at McGuire and Travis AFB's will lose their airlift mission as will five other C–141-equipped Reserve units. In the meantime, 96 of the best C–141's in the fleet will be modified with global positioning systems, a new autopilot, station keeping equipment, and airlift defensive systems. Although these upgrades will not extend the service life of our C–141's, we plan to make best use of them until at least 2006.

New mission areas in the Air Force involve the Reserve as well. We can make a viable contribution to the development of Information Warfare because the nature of this important new mission lends itself to the unique talents of our Reservists. Because the Air Force is a highly technical branch of service, many Air Force Reservists have strong links with the civilian communication and computer communities. We hope to capitalize on their special skills and associations to play a significant role in the information warfare mission as it evolves. This special kind of synergy will help us as we explore potential involvement in three other growing mission areas: space operations, modeling and simulation, and unmanned aerial vehicles.

As the need for Reserve participation grows, it is logical to assume that we will experience growth in certain missions. The first of two associate KC–135R squadrons will be fully operational by the end of fiscal year 1996 with the second scheduled to be in place in fiscal year 1998. We will also stand up an AWACS associate squadron at Tinker AFB in fiscal year 1996 with six crews programmed to be mission ready by the end of fiscal year 1998. These Reservists will enhance combat and peacetime capability within the AWACS community by increasing the number of aircrews and maintenance personnel available for this important mission.

APPROPRIATIONS AND END STRENGTH

Nearly 90 percent of the Air Force Reserve Operation and Maintenance (O&M) Appropriation is committed to flying programs and full-time support personnel. Overall, Reserve appropriations fund operating expenses; salaries for civilian employees, air reserve technicians, and participating Reservists; and military construction. Table I depicts our fiscal year 1995 actuals, current estimate for fiscal year 1996, and our fiscal year 1997 budget request.

TABLE I.—TOTAL PROGRAM AMOUNTS, FISCAL YEAR 1995 TO FISCAL YEAR 1997 BY APPROPRIATION

[In millions of dollars]

	Fiscal year—		
	1995	1996	1997
Reserve Personnel, Air Force (RP, AF)	768.8	784.6	776.0
O&M, USAFR	1,471.5	1,516.3	1,488.6
MILCON, USAFR	57.1	36.5	51.7
Reserve Equipment, USAFR	90.9	176.2	
Total	2,388.3	2,513.6	2,316.3

The Reserve O&M Appropriation finances the daily operation of the Air Force Reserve and sustains our primary mission of combat readiness. The majority of this appropriation funds requirements such as pay for civilian personnel and military technicians, fuel and other supplies for our flying program, and depot-level maintenance.

The fiscal year 1997 request of $1,488.6 million includes price increases of $50.1 million and a program decrease of $77.8 million. Program increases for annualization of the associate flying mission at McConnell AFB, base operating support at March ARB, annualization of contract conversion and headquarters management end strength realignment are offset by reductions across the Air Force Reserve in our civilian work force, force structure changes, mission changes and conversions.

The Reserve Personnel, Air Force (RP, AF) Appropriation pays for training of drilling Reservists, individual mobilization augmentees (IMA's) and 628 Reservists in full-time support of the Air Force Reserve, providing day-to-day administration and management, recruiting support, and support to major commands, the Joint Staff and other Department of Defense staffs. These funds also support military personnel costs of students enrolled in junior and senior Air Force ROTC, and the F. Edward Hebert Armed Forces Health Profession Scholarship and Financial Assistance Grant programs.

The $776 million request for fiscal year 1997 includes a price growth of $18 million and real program decrease of $26.7 million. The program supports unit conversions from C–141's to C–17's; continuing modernization of our KC–135 fleet; increases in heavy bomber, space operations and transportation missions; a restructuring of professional education and training requirements for Reservists during their careers; and 23 new junior ROTC detachments in fiscal year 1997. The fiscal year 1997 end strength request of 73,281 is 688 less than the 73,969 authorized for fiscal year 1996.

Our Military Construction (MILCON, USAFR) Appropriation provides funds to construct, acquire, expand, refurbish or convert Air Force Reserve facilities. The fiscal year 1997 request for $41.4 million involves fifteen projects in ten states plus $4.3 million for assorted minor construction projects and another $5.9 million for architectural and engineering services. This modest investment will renew, replace or revitalize a physical plant infrastructure valued at more than $4.5 billion. This is quite a boon for the American taxpayer.

We do a good job of managing the resources entrusted to us by Congress and the American people. This is both an obligation and an unspoken part of our mission. As the Air Force Reserve takes on additional missions and an increasing share of the overall Air Force work load, we will need funding commensurate with the taskings we are expected to accomplish. This means sufficient funds and people to operate the equipment we have if we are to get the most from it.

CONCLUSION

The Air Force Reserve will soon celebrate our fiftieth anniversary. We remain ready to support mission requirements at any time, under any conditions, anywhere in the world. With your support and the support of the people of this great land, we will remain one of the most capable and cost-effective aerospace forces in the history of modern warfare.

Biographical Sketch of Maj. Gen. Robert A. McIntosh

Major General Robert A. McIntosh is chief of Air Force Reserve, Headquarters U.S. Air Force, Washington, D.C., and commander, Air Force Reserve, a field operating agency located at Robins Air Force Base, Ga. As chief of Air Force Reserve, General McIntosh serves as the principal adviser on Reserve matters to the Air Force chief of staff. As commander of Air Force Reserve, he has full responsibility for the supervision of all U.S. Air Force Reserve units around the world.

The general entered the Air Force in 1966 as a graduate of the Ohio University Reserve Officer Training Corps program, and earned a bachelor of science degree in business administration. He has commanded an Air Force Reserve wing, two Reserve numbered air forces and served as vice commander of the Air Force Reserve. He separated from active duty in August 1971 to join the air reserve technician program as a full-time civil service employee with active participation as an Air Force reservist. He is a command pilot with more than 4,000 flying hours in the A–10, A–37, C–130, and F–4.

General McIntosh and his wife, Susan, have a son, Mark, and a daughter, Amy.

Marine Forces Reserve

STATEMENT OF MAJ. GEN. THOMAS L. WILKERSON, COMMANDING GENERAL, MARINE FORCES RESERVE

Senator Stevens. General Wilkerson, before you start I want to thank you very much for the participation in the Operation Arctic Care up in our area. Your people left a great many friends in my State and I thank you very much.

General WILKERSON. Thank you, sir. After that, I perhaps should not say very much more. [Laughter.]

Nonetheless, this is my initial appearance before you and I am honored to be present as the Commander of the Marine Forces Reserve. I think the best way to summarize where we see ourselves headed is to echo some of the things that you and Senator Inouye said.

The Commandant has testified before the Congress that as we move forward into the 21st century people are the most important part of what we do in the corps and we will not compromise on our quality. To maintain quality people and Reserves takes quality equipment, quality manning, quality education, quality training.

PREPARED STATEMENT

You help us directly with the manner in which you build our forces to make that retention and recruitment of those quality people a reality, and I look forward to sharing my views with you about how better to do that during today's discussions. Thank you, sir.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. THOMAS L. WILKERSON

INTRODUCTION

Mr. Chairman, distinguished members of the committee, thank you for the opportunity to report on the combat readiness and future needs of the Marine Corps Reserve. The information I provide is consistent with the President's budget submission and the Department of the Navy 1996 Posture Statement.

A story I often relate is of one of our activated units in Operation Desert Storm in order to illustrate the potential and the capability of the Marine Corps Reserve. The story documented our wartime performance. It provides evidence why our priorities must focus on mission oriented training to fight and win in battle. The tale also served to underscore the indispensable nature of the Reserve Component.

The story concerned Company B, 4th Tank Battalion from Yakima, Washington. In three days of combat engagements forward of friendly formations, Company B knocked out 49 tanks, 41 BMP's/armored vehicles and 28 other types of vehicles. Four hundred and sixty-eight Iraqi soldiers were also taken prisoner before Saudi Arabian and Kuwaiti units arrived and passed through the Company B positions to liberate Kuwait City.

I mention the story to emphasize our plans for the future of the Marine Corps Reserve. Our vision remains focused on warfighting, specifically those elements of combat arms required to seamlessly augment and reinforce Active Component Marine Corps air and ground operating forces. Like Company B's integration with the Active Component 1st Battalion, 8th Marines for Desert Storm, our programs and policies must support the assimilation of the Reserve Component into the Active Component for the Marine Corps Warfighting Force. Our goal remains to stand shoulder to shoulder with the Active Component in a seamless, integrated Corps.

Last year, there were three ongoing initiatives that described what we were doing to improve our warfighting readiness to fight and win the close battle. First, we were working with the Active Component to improve the integration of individuals and units in exercises and operations. Second, we were participating in the refinement of the Marine Corps' strategic and operational concepts for the future. Third, we were continuing to build on our strengths of personnel quality, warfighting readiness and training, equipment fielding, and the Inspector-Instructor/Active Duty Support program.

My purpose today is to provide the committee with information on all of our initiatives to maintain our combat readiness and build for future exigencies. These initiatives feature policies and actions delineated in two keynote documents delivered by General Charles C. Krulak, Commandant of the Marine Corps, in July 1995. In an All Marines message (ALMAR 191/95), he identified five pillars that represent his most strongly held beliefs for an effective Marine Corps: People, Core Values, Education and Training, Warfighting, and Naval Character. In his Commandant's

Planning Guidance, he directed specific actions to define how we will translate the five pillars into action to ensure Total Force unity of effort.

The five pillars and Commandant's Planning Guidance provide the focus for my statement, and the future Total Force Marine Corps. In the context of these discussions, I will address the resources we need to accomplish our assigned missions and furnish current information on the challenges we face.

PEOPLE

In his Guidance, General Krulak noted "Our ability to win battles boils down, as it always has, to our Marines. The most important things we do in the Marine Corps are to make Marines and win our nations's battles * * * everything starts and ends with the individual Marine."

The resolve and initiative of our Marines is combat proven. The media often accounts for the size of the services in terms of hardware such as the number of Army tanks, Air Force jets or Navy ships. We are viewed differently. Our combat formations may include high performance aircraft and helicopters, tanks and mechanized vehicles, and sea based amphibious ships. However, we are most commonly identified by who and what we are—Marines.

Personnel Quality

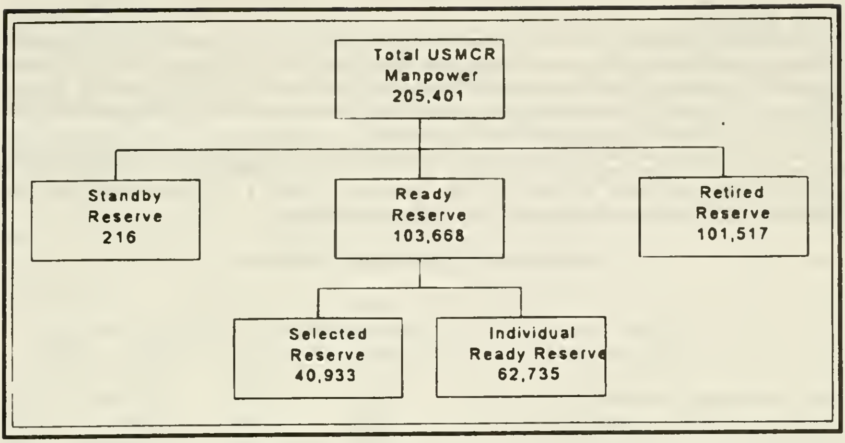
The Marines who serve in our Reserve Component are our most precious asset and the source of our strength. They are the building blocks of our teamwork and success in combat. They represent the diverse population of our great American society. Our Marines deserve rewarding career opportunities, adequate pay and benefits, and the guarantee of equal opportunity to reach their full potential without hindrance of discrimination or harassment.

Reserve Marines are ambitious, disciplined, hard-working, motivated, well-trained, well-led and dedicated to excellence in serving their Country and Corps. They and their families voluntarily make numerous sacrifices each year to participate in the Marine Corps Reserve. Because Marines are the centerpiece of our Corps, recruiting them, training them, instilling within them our core values and a sense of integrity and accountability, equipping them, and treating them with fairness must be our top priorities and principal areas of emphasis.

In his Guidance, General Krulak outlined both his intent with respect to how Marines should be led, and a number of new manpower management policies to ensure the readiness of our units. His objective was to limit adverse consequences on individual Marines. The Marine Corps Reserve is complying fully with this guidance. Be it cultivation of core leadership competencies in our officers, staff noncommissioned officers, and noncommissioned officers, or simply the eradication of the "zero defects mentality", we are working to ensure Marines epitomize what is good about our nation and personify the ideals upon which it was founded.

Reserve Manpower Categories

The 174,000 Active Component Marine Corps is complemented by the Marine Corps Reserve. The Marine Corps Reserve is organized into three categories as required by law: the Ready Reserve, the Standby Reserve, and the Retired Reserve. Active Component personnel, Navy Active and Reserve personnel, and civilian employees provide support to Marine Forces Reserve. The following line diagram summarizes these manpower categories and the personnel strength contained within each as of 30 September 1995.



Ready Reserve

The Ready Reserve consists of the Selected Marine Corps Reserve and the Individual Ready Reserve. It is the largest category of the Marine Corps Reserve, and the primary source of units and individuals upon mobilization.

The Selected Marine Corps Reserve includes the warfighting units of the Marine Forces Reserve, Individual Mobilization Augmentee members, and Active Reserve Marines. Reservists serving in Marine Forces Reserve operating units comprise 82 percent of the Selected Marine Corps Reserve. The remaining 18 percent of reservists serve in the supporting establishment or are undergoing initial active duty for training.

The major commands of the Marine Forces Reserve include the 4th Marine Division, the 4th Marine Aircraft Wing, the 4th Force Service Support Group and the Marine Corps Reserve Support Command. The Division, Wing and Force Service Support Group are the largest segments of the Selected Marine Corps Reserve. The structure of the Marine Forces Reserve operating forces is organized specifically to meet mobilization missions. The structure parallels that of the Active Component. When fully mobilized, the Selected Marine Corps Reserve represents about 25 percent of the Marine Corps combat power available to the National Command Authorities.

Our Individual Mobilization Augmentee program varies slightly from other Selected Marine Corps Reserve activities. Marines in this program are individually assigned to designated headquarters elements, bases and stations to support the wartime requirements of the Active Component. During fiscal year 1995, two hundred sixty-four of these Marines staff the 47 mobilization stations located throughout the country. These stations completed the screening of over 10,000 members of the Individual Ready Reserve. For fiscal year 1996, we have a budget of $1.3 million to muster 13,000 Marines from the Individual Ready Reserve. In fiscal year 1997, $1.4 million will muster 13,000 from the Individual Ready Reserve.

We also have used Individual Mobilization Augmentees to develop and implement automated tools to facilitate the rapid and efficient identification of those Individual Ready Reserve and retired officers with the greatest military occupational specialty currency, or officers with particular language skills or advanced degrees. These tools feature user friendly screen menus to point and click to the data element fields of interest. We anticipate using these automated tools in Exercise Positive Force/MOBEX 96 scheduled for 1–14 March 1996. The tools will facilitate our examination and identification of new methods for mobilizing Marine Corps Reserve units and individuals, and will supplement the processes successfully used in Operation Desert Storm.

Demand for individual mobilization augmentee participation has been increasing. We have realigned our individual mobilization augmentee structure to support emerging requirements of the Commander-in-Chiefs, and the Commanders, Marine Forces Atlantic and Marine Forces Pacific. We are continuing to monitor and validate all billets in the program to ensure all priorities are adequately addressed.

The Active Reserve program, which replaced the Full-Time Support program in June 1994, is the third part of the Selected Marine Corps Reserve. Under this program, Reserve personnel serve on a full-time, active duty basis to support Marine

Forces Reserve and Active Component headquarters staffs. Career progression, personnel assignments, retention and promotion opportunities are tied to Total Force requirements. Officers are selected for the Active Reserve program by an Officer Retention Board from applicants throughout the Total Force Marine Corps. Enlisted Marines are selected for the program by a standing board at Headquarters Marine Corps to fill emerging requirements. Access and retention of the highest quality Marines for the program is ensured by this process.

A comparison of actual end strength for fiscal year 1994 and fiscal year 1995, our Congressionally approved end strength for fiscal year 1996, and requested fiscal year 1997 end strength, is shown in the following table. Funding to maintain our appropriated end strength is one of our highest priorities.

MARINE CORPS RESERVE END STRENGTH

Category	Fiscal year—			
	1994	1995	1996	1997
Marine Forces Reserve Operating Forces[1]	34,250	33,645	34,430	34,156
Individual Mobilization Augmentee	1,489	2,384	2,145	2,145
Active Reserve[2]	2,273	2,251	2,559	2,559
Initial Active Duty for Training[3]	2,699	2,653	3,140	3,140
Total Selected Marine Corps Reserve	40,711	40,933	42,274	42,000

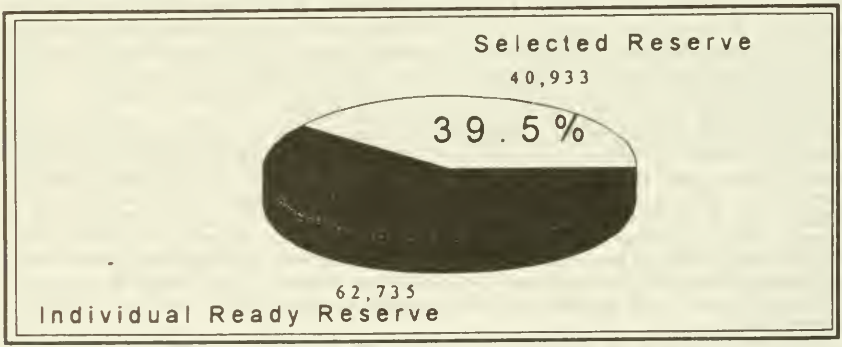
[1] Excludes Individual Mobilization Augmentee and Active Reserve Personnel. Includes members of the 4th Marine Division, the 4th Marine Aircraft Wing, and the 4th Force Service Support Group.

[2] At the end of fiscal year 1995, 1,910 Active Reserve Marines were assigned to the Marine Forces Reserve. The remainder were assigned to supporting bases and stations.

[3] Includes a small number of recruits awaiting Initial Active Duty for training.

At the end of fiscal year 1995, the 62,735 members of the Individual Ready Reserve represented more than 60 percent of the Ready Reserve. The Individual Ready Reserve consists of Marines who have served and received training as part of the Active Component or Selected Marine Corps Reserve, but, while not currently drilling, have some period of obligated service remaining. Individuals who have completed their military service obligation may also choose to remain in the Individual Ready Reserve.

The Individual Ready Reserve provides pre-trained Marines to fill shortfalls in Active and Reserve Component forces, and for the expansion of the supporting base to meet wartime contingency requirements. It is managed by the Marine Corps Reserve Support Command, located in Kansas City, Missouri. The following diagram illustrates the strength of the Ready Reserve as of 30 September 1995.



Finally, Ready Reserve Marines are utilized individually, to the extent funding is available, to support the National Military Strategy. Individual Reserve support to Active Component commanders was significantly streamlined in fiscal year 1995. Authority was granted to these commanders to approve funded orders requests for up to 179 days. An automated Reserve orders request tracking system is under development to further facilitate support to the operating forces.

Standby Reserve

The Standby Reserve consists of reservists who may be ordered involuntarily to active duty in time of war or national emergency as declared by Congress when the Ready Reserve does not have enough qualified members in a specific skill category to fulfill requirements. Marines in the Standby Reserve are normally not available for mobilization in situations that are temporary in nature. The end strength of the Standby Reserve at the end of fiscal year 1995 was 216 Marines.

Retired Reserve

The Retired Reserve includes a total of 101,517 Marines in the categories below. These include retirees from the Active and Reserve Components. The Retired Reserve is available to National Command Authorities in times of national emergencies.

—*Category I.*—This category consists of non-disability Active and Reserve Component retirees under age 60 who have been retired less than 5 years. The reservists in this category are eligible to apply for retired pay when they reach age 60. A total of 14,273 retirees are in this category, including 1,776 former Reservists.

—*Category II.*—Category II retirees are those non-disabled Active and Reserve Component Marines under age 60 who have been retired 5 years or more. Reservists in this category are also eligible to apply for retired pay at age 60. A total of 23,624 retirees are classified in this category, including 789 former Reservists.

—*Category III.*—These retirees include individuals from both the Active and Reserve Components, including those retired for disability, who are not included in categories I and II. A total of 63,620 retirees are classified in this category, including 7,633 former Reservists.

Recruiting and Retention

In his Planning Guidance, the Commandant recognized the vital role of recruiting. He is also committed to improving upon retention. Our ability to manage recruiting and retention programs well is a critical measure of success.

Recruiting.—I'm pleased to report that the Total Force Marine Corps continues to do very well in attracting quality personnel. The dedication and personal sacrifices of our recruiters underwrites this success. High quality recruits result in better performance and less attrition. They improve unit readiness. Currently, a sufficient quantity of the well-qualified young Americans sought out by our recruiters do make the commitment to become United States Marines. They not only represent an investment in our Nation's future readiness; they embody the very lifeblood which sustains the Corps.

Prior service Marines make up about 30 percent of the Selected Marine Corps Reserve. They contribute valuable leadership and technical skills, and enhance our combat readiness. We recruited 5,527 (officer and enlisted) prior service Marines in fiscal year 1995. For fiscal year 1996, our prior service recruiting mission is 5,400 Marines (officer and enlisted), as is our fiscal year 1997 mission. Our prior service recruiting program is staffed by reservists assigned to the Active Reserve program.

The Marine Corps Recruiting Command's Active Component recruiters meet our non-prior service recruiting needs. They work in close coordination with Selected Marine Corps Reserve units. Our seamless Total Force approach to recruiting provides the same high quality men and women for both components, and helps us realize economies and efficiencies. We recruited 5,421 non-prior service Marines during fiscal year 1995, 100 percent of our mission. We also surpassed our quality goals. Ninety-eight percent of our accessions were Tier I high school graduates, and over 67 percent scored above the 50th percentile on the enlistment test. Our fiscal year 1996 and fiscal year 1997 non-prior service recruiting missions are 5,805 and 6,147 recruits, respectively.

Retention.—During fiscal year 1995, for Marines with less than six years of service, our continuation rates for personnel in the Selected Marine Corps Reserve were 66.0 percent of officers and 79.6 percent of enlisted Marines. For Marines with more than six years of service, the rates were 84.2 of officers and 67.4 percent of enlisted Marines. The differences in these rates from the fiscal year 1994 results are negligible. A major factor contributing to the stability of the Selected Marine Corps Reserve is the Montgomery G.I. Bill—Selected Reserve for educational assistance. As of September 1995, 12,606 Reserve eligible Marines have participated in the program.

End-Strength

Our recruiting and retention programs have provided us with responsive, highly capable, motivated, intelligent and dedicated Marines. Despite our best efforts, however, our success is tempered because our strength at the end of fiscal year 1995 was 40,933, marginally short of our budgeted end strength of 41,000, and lower than the congressionally authorized ceiling of 42,000.

This shortfall was forecast in testimony to the committee last year. It was not unanticipated. In both last year's report and that of Brigadier General Berkheiser the prior year, we discussed a number of problems unique to the Marine Corps Reserve which would, in the short run, adversely affect end strength. BRAC related site closures, deactivation's and relocation's necessitating the need for partial or complete unit rebuilding, in conjunction with competition among the service components, colleges, universities and industry from a limited pool of those citizens qualified for military service, would hinder our efforts to meet our authorized ceiling.

We are still optimistic about meeting this year's end strength. At this time we are on track with our contracting and retention goals, although not without a struggle. Our plan is to attain our appropriated end strength of 42,274 this fiscal year, and 42,000 in fiscal year 1997.

Inspector-Instructor/Active Duty Support Program

Mr. Chairman, members of the committee, last year we highlighted for you the importance of the Inspector-Instructor/Active Duty Support program to the Marine Corps Reserve. We view this program as critical to our operational readiness, and mission performance once mobilized. The program provides us with a unique and successful system of supervising, instructing, and assisting Reserve units in building and maintaining a high, continuous state of combat readiness. The program is unparalleled among the services, and a cornerstone upon which each Reserve unit hones its operational capability. The program is also essential to the integration of both the Active and Reserve Components into the Total Force Marine Corps.

Under this program, active duty Marines with recent operational Fleet Marine Force experience are assigned to work with the Reserve Component. Active Reserve Marines are also assigned to the program. These Marines provide advice and assistance to the reservists to optimize training and readiness. They coordinate with the unit staff on all administrative and logistics support for weekend drills. In brief, they provide continuity which is important for planning and training preparation. Because of their efforts, when the unit reports for weekend drill, available time is dedicated largely to training. Our periodic rotation policy of personnel results in Total Force sharing of current operational experience obtained in prior Fleet Marine Force assignments.

Inspector-Instructor staffs are assigned to support the Selected Marine Corps Reserve units of the 4th Marine Division and the 4th Force Service Support Group. The Active Component and Active Reserve Marines of the 4th Marine Aircraft Wing, while not designated Inspector-Instructors, perform site support duties as well as functions in helping maintain unit readiness for mobilization. These Marines provide for ongoing administration and maintenance of squadrons and other aviation units. They also support daily flight operations. In addition, a small number of Active Component Marines serve with the Marine Corps Reserve Support Command and our I/II Marine Expeditionary Force Augmentation Command Elements.

Aviation Group Commanders, Commanding Officers of Reserve regiments, and Reserve battalion Inspector-Instructors are command designated billets and career enhancing assignments. Our Inspector-Instructor system has been in place since 1936.

The following table provides the distribution of Total Inspector-Instructor/Active Duty Support of the Reserve at the end of fiscal year 1995.

INSPECTOR-INSTRUCTOR STAFFS AND ACTIVE COMPONENT SUPPORT OF THE RESERVE

	Inspector-Instructor 4th MarDiv/4th FSSG	Active Component 4th MAW/ Other
Officers	360	143
Enlisted	2,141	1,663
Subtotal	2,501	1,806
Total Inspector-Instructor/Active Component Support	4,307	

U.S. Navy Support

The U.S. Navy furnishes the Marine Forces Reserve with medical, dental and religious support, as well as Naval Gunfire Liaison Officer support. This support is similar to the support provided to the Active Component Navy-Marine Corps team. The Marine Forces Reserve missions could not be accomplished without the direct support and cooperation of the U.S. Navy. I am pleased to acknowledge again for the committee the professionalism and performance of the Naval officers and enlisted personnel assigned to and working in tandem with our Reserve Component.

Civilian Support

Our fiscal year 1997 budget request includes funding for 161 civilian positions. The positions are in support of our Reserve Component, and are in administration, data processing, and personnel management. They are located at the major Reserve headquarters sites.

CORE VALUES

A rapidly changing world demands the mental, moral and physical preparation of our Marines for combat across the spectrum of conflict. We have always recognized the requirement for mental and physical preparation. Today, there is a need to teach more. We have emphasized our core values of honor, courage and commitment—not as superfluous rhetoric or a slogan but as words to live by. General Krulak has said "there is no room in the Marine Corps for situational ethics or situational morality." The rapidly changing operational environment of today will place Marines at all levels in critical situations demanding decisions. Our core values provide a base from which Marines can draw guidance to make sound decisions. Knowing and living these values inspires the confidence and trust of our Marines to consistently address issues and problems.

Our emphasis on core values is particularly relevant when considering the fact so many Marine Forces Reserve personnel are young people. Our enlisted to officer ratio is 11.7 to 1, which reflects the confidence we entrust in our young Marine leaders. From corporals leading squads to generals leading divisions, decisions are guided by our core values.

Introduction to our core values begins during recruit training or Officer Candidate School. During the transition from civilian life to that of a Marine, we imbue our prospective Marines with our core values. They learn the virtues of teamwork and anonymity, and gain an appreciation for self-discipline and cooperation. Marines receive reinforcement of our core values throughout their careers. Reserve Marines are guided by their Selected Marine Corps Reserve unit leaders, the Inspector-Instructor staff, and assigned personnel. Our aim is to ensure one common standard and bond.

A young Marine once described the institutional ethos of the Marine Corps: "Other people tell you what they do, Marines tell you what they are." Marines are disciplined, physically fit, responsible for their actions, of good moral character and spirit, and indoctrinated in the Marine organizational culture where respect for authority, ethical conduct, proficiency and working together are daily realities. The core values of honor, courage (both moral and physical), and commitment are a legacy from generations of Marines and reflect the proud, time-honored traditions of our Corps.

Permit me to relate a short story which illustrates our core values better than words. The story is not a combat experience, but happened just this past year in Oklahoma City, Oklahoma, following the bombing of the Alfred P. Murrah Federal Building on April 19, 1995. After 40 hours of non-stop relief effort, Michael S. Curtain, a police officer, was at the edge of physical and moral exhaustion. Nearly spent of energy, and probably using only adrenaline to keep moving, he continued to search for survivors. As he scrambled across and through the vast wreckage of the torn federal building, the sight of a body covered by the rubble stopped him in his tracks. It was the body of a man wearing trousers that were deep blue with a broad red stripe. It was the trousers of a U.S. Marine. Curtain knew immediately, because he too was a Marine—a Marine reserve first sergeant.

Curtain realized that he had just found the body of Captain Randolph Guzman, the recruiting station executive officer. After Curtain found the Captain, he started asking around to find out who among the rescuers might be a former Marine. He found Manny Hernandez and Juan Garcia, both policemen; and Ray Bonner, a paramedic, all former Marines. Now the first sergeant had a four man fire team.

Because of the inherent danger involved with the unstable structure, most recovery efforts were focused in other areas of the building at that time. However, Curtain approached officials in the chain of command and told them he and a team of former Marines had a special interest in the recovery of Guzman's remains.

Approval was granted to this "Marine team" to accomplish their special mission, but they only had a four hour window of time in which to work. These men worked under extremely dangerous conditions, in an area of the building that was on the verge of collapse. As they used jack hammers to break through the concrete, the building shifted twice. The Marine team refused to stop.

When they finally freed the Captain's body, Curtain knelt down beside him, covered Guzman's face with his hand and closed the Captain's eyes. Then these Marines took a United States flag that someone had sent up, and solemnly draped it over the Captain's body. With the help of three other men, they carefully lifted Guzman up and away from the rubble and carried him out.

The example of First Sergeant Curtain and the three former Marines in their simple act to show respect for a fallen comrade deeply touched everyone who saw it. When they came out with the flag draped body, everything became quiet. You could have heard a pin drop. Engines were turned off, crane operation ceased, and rescue work stopped. People removed their hard hats and bowed their heads. Some said a prayer. Many cried.

Mr. Chairman and members of the committee. This is a sad story, but a true one that shows just how deep the enduring ethos of our Corps can be. The lead rescuer of the recovery detail was a Marine Reserve First Sergeant from New York City with 20 years of military service who had been deployed by his civilian employment for the emergency. The other rescuers were former Marines who had been similarly mobilized following the tragedy. One of the rescuers had this to say after the recovery. "When we came out with the flag-draped Captain, I saw why I was a Marine once. It is because I know I wouldn't expect anything else from any other Marine * * *. It revalidated the esprit and brotherhood that I remember was taught to me in bootcamp years ago."

It is Marines such as these who make a daily contribution within the communities in which they reside—by living our core values and telling the Marine Corps story. They expand our presence beyond our Reserve Training Centers. Ultimately, they make America a better place to live and symbolize all that she expects of her Marines.

MAKING MARINES: EDUCATION, TRAINING, AND EXERCISES

On assuming the Commandancy, General Krulak shared general guidance on the training and education needed to prepare the Total Force. "Training and education are inextricably linked. Training is primarily learning by doing. Education denotes study and intellectual development. We will not train without the presence of education; we must not educate without the complementary execution of well-conceived training. I link the two * * * to convey my vision that success in any mission undertaken by the Corps will flow directly from our ability both to train and educate every Marine."

Education

General Krulak provided these definitions and guidance to stress that the Marine Corps has always turned to its training and education systems to keep its warfighting edge—and that we must continue that emphasis today. We must train as we will fight in combat—to win battles. The Marine Corps Reserve is in step with the Commandant's guidance. I will discuss three of our most important education programs.

Initial Warfighting Skills.—The making of an enlisted Marine begins at recruit training. The requirements to earn the title "Marine" are universal in the Total Force Marine Corps. Platoons at boot camp are a mix of Active and Reserve recruits. All enlisted Marines, regardless of component, participate in the same Marine combat skills training. Beyond the common recruit training and follow-on combat training at the School of Infantry, both Active and Reserve Component enlisted Marines also attend the same full length formal schools to obtain military occupational specialty qualification.

Officers within the Marine Corps Reserve, in nearly all cases, possess at least three years of active duty experience. Upon completion of their obligated service, they choose to continue their affiliation with the Marine Corps in the Reserve. Reserve officers participate in common officer accession programs, Basic School, and military occupational specialty qualification schools alongside officers remaining on active duty prior to the Reserve officer transferring to the Ready Reserve.

Active and Reserve Marines have identical standards for physical fitness, weight control, personal appearance, essential military subjects, and individual and collective skill training. Our training is designed to be progressive, and practical, to maximize the limited time available for training.

Professional Military Education.—Battles are seldom lost by the individual rifleman. They are most often lost by commanders who lose confidence in themselves and their knowledge of warfighting. Professional study strengthens operational proficiency and leadership. Marines have always relied on forward-looking education to prepare for future conflicts.

With 25,080 members of Marine Forces Reserve in pay grades E–1 through E–5, it is essential that our Reserve units be led by professionals. Resident schools, ranging in length from two weeks to nine months, and correspondence courses, provide instruction across the full spectrum of military operations from basic tactics and staff planning to joint operations and national security decision making. During fiscal year 1995, 2,048 reserve officers attended professional military education schools. The number of reserve officer professional military education school seats programmed for fiscal year 1996 and fiscal year 1997 is 2,398 and 897, respectively. Schools are also available for our staff noncommissioned officers and noncommissioned officers.

Commandant's Warfighting Laboratory.—The medium for tying together our forward-looking education is the Commandant's Warfighting Laboratory. The Commandant's Warfighting Laboratory is the cradle and test bed for development of enhanced operations concepts, tactics, techniques, procedures and doctrine. It is the vehicle for integrating new technologies and the focal point for advancing warfighting in the Total Force Marine Corps. It is responsible for developing, field testing and implementing future operational and functional concepts, and potential solutions. As our centerpiece for operational reform, it will streamline and consolidate our warfighting posture as we advance into the 21st Century. The Marine Corps Reserve is participating in this initiative with staff support from Marine Forces Reserve, the Reserve Affairs Division, Headquarters Marine Corps, and Individual Mobilization Augmentee personnel assigned to the Marine Corps Combat Development Command, Quantico, Virginia.

Training

Education prepares Marines intellectually for the future. Training is the practical application of that education. Over the past several years, we have described for the committee in some detail the comprehensive training program we have developed for the Reserve Component. Rather than discuss every facet of the program, I will address four aspects that contribute markedly to our readiness.

Marine Corps Combat Readiness Evaluation System.—The first program is the assessment we perform using the Marine Corps Combat Readiness Evaluation System. This program is important because it tells what we are doing right as well as identifying areas for corrective action. The system tests the ability of the unit to perform specific tasks required to succeed in combat. Since we really mean what we say about maintaining common performance standards for like units in our Active and Reserve Components, the same evaluation criteria are used for both components, contributing to seamless integration. Eight battalion sized units were evaluated as ready during fiscal year 1995. Eight units are scheduled for evaluation during fiscal year 1996 and ten in fiscal year 1997. We normally evaluate our units once every three years.

Simulators.—The use of simulators can make subsequent field training more effective. Simulators play an ever-increasing role in preparing Marines for war. Under the guidance of the Marine Corps Modeling and Simulation Management Office, we are aggressively employing this equipment at our Selected Marine Corps Reserve unit locations. Simulators have been a fundamental part of aviation training for many years, and now play an expanding role with Reserve ground forces. Tank and light armored vehicle gunnery, the firing of anti-tank missiles, and small arms marksmanship, are enhanced by simulators. Marksmanship training upgrades, including acquisition of a full range of heavy infantry simulators, are a priority. Transition to the M1A1 main battle tank by the Reserve will be accelerated by receipt of the Marine Corps Combat Vehicle Appended Trainer simulator. Our 4th Marine Aircraft Wing units utilize FA–18, KC–130, AH–1W, UH–1N, CH–46 and CH–53 simulators for aircrew proficiency and currency training, and aircrew evaluations.

Military Occupational Specialty Qualification.—As stated last year and by my predecessors, our goal for military occupational specialty qualification remains at 95 percent in our Marine Forces Reserve units. Our military occupational specialty match rates at the end of fiscal year 1995 comparing Marines possessing a military occupational specialty rating to on hand strength were 82.0 percent for the 4th Marine Division, 85.2 percent for the 4th Marine Aircraft Wing, and 83.5 percent for the 4th Force Service Support Group. These rates compare with rates we reported a year ago for fiscal year 1994 of 81.0 percent for the 4th Marine Division, 80.0 percent for the 4th Marine Aircraft Wing, and 82.0 percent for the 4th Force Service Support Group.

Although we are pleased with the improvement in the rates, I must express caution in interpreting the results. For several years our qualification rates have been hovering between the eightieth and ninetieth percentile. The rates are lower than our stated goal of 95 percent. Since individual readiness begets unit readiness, attainment of the full 95 percent qualification remains an important goal. At issue are the programs and policies needed to achieve the required level of individual qualification.

Clearly, full funding of our formal school budget for prior service and non-prior service recruits will result in further improvement. Our policy to recruit non-prior service applicants for existing or projected unit openings, and arrange for follow-on military occupational specialty producing school seats following the completion of basic training, will also help the match rate.

Concurrently, an increasing reliance on prior service Marines to fill openings can be a barrier to improvement. Many formal schools require six weeks or longer to complete and some prior service reservists are simply not available to attend a full length course because of conflicts with their civilian employment. In these instances we are discussing alternatives to obtain the military occupational specialty training, including innovative learning applications featuring in-home or Reserve Center training as a compliment to shortened formal instruction for certification. Vocational/technical training programs provided at establishments in the local community are also an option to obtaining qualification for certain unique occupational specialties. During fiscal year 1995, we had 48 reservists participate in these programs. We will train approximately 70 Marines using vocational/technical programs in fiscal year 1996. Fiscal year 1997 training of this nature will approximate that of the previous year.

Mr. Chairman and members of the committee, we will continue to monitor our military qualification match rates as part of our Reserve manpower management. This area continues to be an area of emphasis for the Marine Corps Reserve.

Reserve Counterpart Training and Exercise Support Programs.—Assignments under our Reserve Counterpart Training and Exercise Support Programs are available to members of the Individual Ready Reserve. These assignments complement the professional military education opportunities and allow members of the Individual Ready Reserve to refresh their leadership and military occupational specialty skills. The assignments are located at Marine Corps installations, or with Active Component units participating in an exercise. During fiscal year 1995, 451 reservists participated in Reserve Counterpart Training and 373 reservists participated in the Exercise Support Program. We have programmed and budgeted funds to support both of these very beneficial programs during fiscal year 1996 and fiscal year 1997. In addition, we are developing a system which will allow us to target our Reserve Counterpart Training resources to those Reserve officers and enlisted Marines with skills required by the Active Component upon mobilization.

Exercises

The Marine Reserve participates in numerous training exercises to enhance our warfighting readiness. The exercises provide a wide range of training and self evaluation opportunities covering the spectrum of warfighting skills from individual combat proficiencies in essential subjects or military occupational specialty requirements to the deployment capability of a Marine Expeditionary Force. Designated units, as part of a Marine Air-Ground Task Force, participate in live fire exercises, amphibious training, jungle training, mountain training and cold weather training. In other words, we train to win in every clime and place.

Total Force Exercise Planning.—Optimal Total Force exercise planning is achieved under our Training Exercise and Evaluation Plan. During fiscal year 1995, detachments of various units of Marine Forces Reserve participated alongside the Active Component in Exercises Cobra Gold and Freedom Banner in Thailand, Balikitan in the Philippines, Ulchi/Focus Lens in Korea and Habu Hakasan in Japan. Reservists also participated in bilateral training in French/Dutch Curacao and in the Royal Marine Exchange with the United Kingdom. For fiscal year 1996, we have similar training within the limits of our transportation funding. Fiscal year 1996 exercises outside the continental United States include: Foal Eagle (Okinawa); Indigo Desert (Kuwait); Battle Griffin (Norway); Cobra Gold (Thailand); Freedom Banner (Thailand); Ulchi/Focus Lens (Korea); Royal Marine Exchange (UK); and Bright Star (Egypt). Though Reserve participation overseas has not been finalized for fiscal year 1997, participation will approximate that of fiscal year 1996.

Combined Arms Exercises.—We schedule two live fire Reserve Combined Arms Exercises each year at the Marine Corps Air-Ground Combat Center in Twentynine Palms, California. These are our most challenging collective training exercises, and indispensable to maintaining our combat readiness. This training emphasizes fire support coordination and command and control during a live fire exercise with troops. All supporting arms are employed during the exercise: fixed-wing air, helicopter gunships, artillery, simulated naval gunfire and mortars. The exercise tests the Marine Forces Reserve capability to command and control Marines task organized into Marine Air-Ground Task Forces, our basic warfighting organization. During fiscal year 1995, 11,573 Marines from 74 Marine Forces Reserve units participated in this training. In fiscal year 1996, 10,811 reservists from 71 units will participate in this training. Fiscal year 1997 participation will approximate that of previous years.

EQUIPMENT

Preparation for future conflict requires training and outfitting Marines with the best equipment available. Our policy is to equip our Reserve units nearly identically to our Active units. This contributes to the seamless integration of our Active and Reserve forces. It is especially critical to our readiness for closing with the enemy and winning the close battle following mobilization.

Single Acquisition Objective and Horizontal Fielding

Equipping our Active and Reserve forces equally is accomplished via the single acquisition objective process, and horizontal or vertical fielding mechanisms. The single acquisition objective process includes equipment modernization plans, and addresses all initial issue quantities and planned sustainability requirements for Active and designated Reserve units. The Marine Corps Reserve is a full participant in the development of the single acquisition objective.

Once the objective is sourced, equipment is fielded either horizontally or vertically based on funding, production and operational circumstances. Horizontal distribution is used when only limited quantities of new equipment are provided at a time. The equipment provided to our Reserve units is an example of this type of distribution. Training allowances are set at a level sufficient for weekend drills and annual training, but less than the full table of equipment authorized for the unit. In contrast, vertical distribution is used when 100 percent of the new equipment is provided to a single unit at a time. This type of distribution would normally be used to ensure forward deployed units are provided with the most modern equipment. Our equipment distribution program ensures responsible dissemination of equipment to the Total Force Marine Corps.

Technological Superiority

Possessing and being able to employ sophisticated weaponry and equipment is critical to our ability to prepare the Corps for the 21st Century. The battlefield of tomorrow will be decentralized and chaotic. In order to win and bring our Marines home alive, we must be able to dominate this environment. Our goal is to have the leading edge weaponry and equipment to continue winning—anywhere, anytime.

The range and lethality of modern weapons increases the threat to the Amphibious Task Force and requires increased ship-to-shore speed and over-the-horizon launch capability. Critical to success in this operational environment are two key platforms, each of which is on the cutting edge of technology for their respective functions.

The MV–22 Osprey tilt-rotor aircraft will be the replacement for our aging helicopter fleet of CH–46E's and CH–53D's. The increased range of the MV–22 over helicopters provides improved strategic mobility with global self-deployability. This greatly enhances tactical mobility with its over the horizon launch capability. The MV–22 uses the sea as a stand-off maneuver space. It can penetrate deeper into the littoral. Survival is also significantly enhanced due to the MV–22's increased speed. Low-rate production of the MV–22 is scheduled for fiscal year 1997.

The Advanced Amphibious Assault Vehicle is also capable of over-the-horizon launch. This vehicle will have more speed, firepower and maneuverability both in the water and on land than our current amphibious vehicle, the AAV7A1, which was introduced over 20 years ago. Based on recent equipment assessments, the Advanced Amphibious Assault Vehicle is the highest priority ground equipment issue item for the Total Force Marine Corps.

The 1996 Department of the Navy Posture Statement includes information on other acquisition programs and priorities of importance to the Total Force Marine Corps in the years ahead.

Reserve Information Network

The Reserve Information Network is a multi-functional, micro-computer, command and control infrastructure for the Marine Corps Reserve. Procured through National Guard and Reserve Equipment Appropriations, the system facilitates intra-site communications among the geographically dispersed units of the Marine Forces Reserve. When fully implemented, we envision the technology system being used for military occupational specialty training, intra-service information sharing and warfighting simulations. The architecture will also support Total Force integration through common reporting.

Mission Essential Equipment Readiness

Mission essential equipment are those items whose availability is mandatory for the execution of the combat and training missions of the unit. The following chart shows our readiness status of this equipment at the end of September 1994 and September 1995.

MISSION ESSENTIAL EQUIPMENT READINESS [1]

Component	September 1994		September 1995	
	Percent	No. of items	Percent	No. of items
4th Marine Division	95.1	12,704	94.6	11,404
4th Marine Aircraft Wing	94.9	3,010	95.4	3,701
4th Force Service Support Group	92.4	2,074	94.3	2,245
Marine Forces Reserve	94.8	17,788	94.7	17,350

[1] The change in the number of component assets in the table is primarily a result of restructuring and redistribution.

Our equipment readiness is outstanding and is indicative of the maintenance productivity that can be achieved when the Total Force is working together to sustain the Reserve Component capability. We will endeavor to further improve upon these levels of equipment operational readiness.

We will also strive to procure, issue and maintain the full amount of standard combat equipment authorized under our training allowance. Funding for equipment must be sufficient to ensure our long-term readiness. Our training allowance represents approximately 76 percent of the Marine Forces Reserve total ground equipment wartime requirement. The quantities on hand above represent only about 92 percent of our training allowance. Training allowance shortages include 51 5-ton trucks, 45 crew served weapons of various types, 168 communications/electronics items, and 466 night vision devices, among other items. We have identified these shortages in the Fiscal Year 1997 National Guard and Reserve Equipment Report, which was recently provided to the Congress by the Office of the Assistant Secretary of Defense for Reserve Affairs. The responsibility to provide the remainder of the ground equipment needed to meet the total wartime requirement rests with the Gaining Force Commander.

WARFIGHTING

The direction to fight and win is embedded in our mission. The mission of the Marine Corps Reserve is to provide trained units and qualified individuals to be available for active duty in time of war, national emergency, and at such times as national security may require.

Traditional Roles

The traditional roles of the Marine Corps Reserve are to seamlessly augment and reinforce Active Component forces. Augmentation provides trained and equipped units, detachments, or individuals to commands of the Active Component forces to bring their structure to the level required for war or other national emergency. Reinforcement provides similar assets to provide depth, replacements, or capabilities not readily available in the Active Component force. Seamless augmentation and reinforcement requires that we organize, train and equip our Reserve units like our Active Component units.

Commission on Roles and Missions

On May 24, 1995, the Commission on Roles and Missions of the Armed Forces issued its report "Directions for Defense." The Commission recommended further integration of the Reserve Components to execute the National Security Strategy. Consistent with this report and our traditional roles, the Marine Corps Reserve continued its work with the Active Component during fiscal year 1995 to build enhanced interoperability so that we can be easily assimilated for close combat when the need arises.

Structure

In 1994, then Commandant of the Marine Corps, General Carl E. Mundy Jr., directed that the title of the Marine Reserve Force be changed to Marine Forces Reserve. The redesignation made the title of Marine Forces Reserve equal to and consistent with the Active Component Marine Forces Atlantic and Marine Forces Pacific. The change was more than symbolic. It affirmed our commitment to the seamless integration of both Active and Reserve Components into the Total Force Marine Corps.

In the spirit of furthering integration between components, General Krulak directed that the designation United States Marine Corps Reserve no longer be placed on unit signs and letterhead stationery. This subtle change also sends a clear signal: there is only one Marine Corps.

General Krulak also redesignated the Reserve Marine Air-Ground Task Force Command Elements Atlantic/Pacific as I/II Marine Expeditionary Force Augmentation Command Elements. The change accurately reflects the operational control relationship of the elements within the I and II Marine Expeditionary Forces. Accordingly, the Commanding General of the II Marine Expeditionary Force Augmentation Command Element, a Reserve Brigadier General, commanded the largest U.S. force in Operation Battle Griffin 96, a major North Atlantic Treaty Organization exercise held in March.

Mobilization Readiness

Name changes mean little unless the Reserve Component is able to mobilize. At the end of fiscal year 1995, Marine Forces Reserve operated from 189 sites spread through 48 States, the District of Columbia and the Commonwealth of Puerto Rico. A key to a credible force is the ability to rapidly consolidate assets, deploy, and bring effective firepower to support a Theater Combatant Commander's war plans.

The Gulf War validated our readiness for mobilization when our Reserve forces were successfully deployed. Not content to rest on our laurels, we have continued emphasizing a cornerstone program to ensure future readiness.

Our Mobilization Operational Readiness Deployment Test, known as a MORDT, is a no notice inspection for Marine Forces Reserve units. During a MORDT, units are inspected to determine their ability to contact and recall personnel, process them into active duty, and deploy. Conducted on a biennial cycle for each unit, MORDT's evaluate mobilization administration, embarkation, personnel, training, medical readiness, and family assistance readiness.

There are two types of MORDT's: MORDT and Go and MORDT and Stay. The difference between the tests is the Go type requires transportation from the Reserve training center to another location for the drill weekend, while the Stay type requires no movement beyond the home training center. Since the Go type is very expensive, we primarily use the Stay method.

During fiscal year 1995, Commander, Marine Forces Reserve, conducted three Go and 115 Stay evaluations for 118 units. All but 16 were found ready on the initial evaluation. Units not passing the first test were scheduled for reinspection and subsequently found ready. For fiscal year 1996, 71 units are scheduled for evaluation. In fiscal year 1997, the MORDT program will continue to ensure the readiness of the Reserve is maintained.

The Marine Air-Ground Task Force

Aside from people, a central strength of the Marine Corps is our combined-arms concept and employment. The combination of infantry forces, artillery, armor and tactical aviation from the water's edge to deep inland allows us to achieve maximum combat power with minimum logistical "footprint."

In order to execute our traditional roles, it is important we train in peace as we will fight in war. Marine Air-Ground Task Forces, MAGTF's for short, are the organizational means by which Marine forces are tailored to meet specific operational requirements. Ideally suited for modern conflict, MAGTF's are integrated combined arms teams, each composed of command, ground, aviation and combat service support elements. They range in size from small special purpose MAGTF's to the powerful Marine Expeditionary Force, our primary warfighting organization.

During exercises, both Active and Reserve operational units are formed into Marine Air-Ground Task Forces. Necessary combat power is provided to the committed Marine Air-Ground Task Force through global sourcing of the Total Force Marine Corps.

Expeditionary and naval in character, the MAGTF is the most adaptable and responsive force in existence. Capable of operating from the sea, ashore, or both, MAGTF formations are self sustaining and provide forward presence, stability, and a potent crisis response in an uncertain world. Capable of loitering for months at a time, if necessary, the rapidly expandable MAGTF is also a means to introduce heavier land-based forces into theater.

One final point regarding MAGTF's. We go to great lengths to instill the combined arms concept within our Marines. All of our officers are trained as infantry platoon commanders, first and foremost. Every enlisted Marine completes the School of Infantry to acquire basic warfighting skills. This common background assures a unity of experience not found in the other services. It provides the Total Force Marine Corps an ability to mesh the disparate Active and Reserve parts of a MAGTF quickly and smoothly.

Operations

We previously listed the names of exercises in which various Marine Forces Reserve units participated alongside their Active Component counterparts during fiscal year 1995. The focus for almost all these exercises was the Marine Air-Ground Task Force. The fiscal year 1996 exercises identified will build on the foundation of the previous exercises and operations conducted shoulder to shoulder with the Active Component. One of these upcoming exercises deserves special mention.

Battle Griffin.—Battle Griffin is a joint, combined military exercise which occurs every three years between U.S. Marine Corps and Norwegian military forces. This exercise is designed to demonstrate allied reinforcement of NATO's northern flank. Approximately 4,100 American servicemen and women participated in Battle Griffin in March of 1996. Unlike past exercises, 85 percent of these personnel were from Marine Forces Reserve and Navy Reserve units. Further, the exercise was commanded by a Marine Corps Reserve Brigadier General. The Commanding General of the II Marine Expeditionary Force Augmentation Command Element deployed as II Marine Expeditionary Force Forward for the exercise.

The exercise featured Marine Reserve ground, aviation and combat service support units. Reserve personnel were flown to the exercise and returned shortly after the completion of training. The Marine Reserve effort made a significant contribution to the Theater Commander-in-Chief's mission, and helped reduce the Active Component operations/personnel/deployment tempo.

Department of Defense matching funds were made available to support the Reserve Component participation in Exercise Battle Griffin. This supplemental funding program helps defray the costs of having the Reserve Component participate in Total Force exercises.

Joint Task Forces.—Marine Forces Reserve continues to conduct numerous counter-drug missions in support of Joint Task Force Six and other law enforcement agencies. During fiscal year 1995, we participated in 61 missions covering ground and aerial reconnaissance, eradication operations, engineer and ground sensor support, intelligence/linguist and other types of services. The fiscal year 1995 support involved 16,619 mandays and 1,164 flight hours. The flight hour cost was $1.856 million. These missions provide further operations/personnel/deployment relief to the Active Component, and provide training opportunities for the Reserve Component. For fiscal year 1996, Marine Forces Reserve is projected to participate in 45 missions. The number of fiscal year 1996 missions is lower due to budget reductions for this line item in the Operations and Maintenance Marine Corps Reserve Marine Corps account. Continued Reserve participation in fiscal year 1997 is anticipated.

Joint Contact Team Program.—The Joint Contact Team Program is European Command's bilateral U.S. military outreach to selected transitioning countries in Central and Eastern Europe, as well as countries in the former Soviet Union. The program relies on contact events such as military liaison teams, traveling contact teams, and familiarization tours to demonstrate American values and ideals. These efforts encourage increased openness, as ideas and experiences are shared in a natural, positive dialogue.

Beginning in fiscal year 1996, Marine Reserve officers will be employed to fill all military liaison teams for five countries in Central and Eastern Europe designated for Marine Corps support. Assignments are for two six-month tours in each country. The majority of the traveling contact teams will also be sourced from the Marine Corps Reserve.

NAVAL CHARACTER

I mentioned one central strength of the Marine Corps is our combined-arms concept and employment. Another central strength is the expeditionary nature of the Corps. The Navy and Marine Corps are inextricably linked. Together, we provide a tremendously versatile and unique warfighting capability for the nation. Properly equipped, we are sea-borne infantry with our own tactical air. Naval expeditionary forces of the Navy/Marine Corps team provide forward presence, rapid crisis response and forcible entry capabilities.

National Military Strategy

Our naval character and warfighting capabilities are particularly relevant to implement the National Military Strategy of Flexible and Selective Engagement. This strategy delineates three sets of tasks and two complementary strategic concepts to achieve our military objectives. The three components of the strategy are peacetime engagement, deterrence and conflict prevention, and fighting and winning our Nation's wars. The two complementary concepts are overseas presence and power projection.

Forward...From the Sea

The strategic underpinning for meeting the operational challenges of the National Military Strategy were introduced three years ago in the White Paper entitled "...From the Sea". The more recent strategic issuance, "Forward...From the Sea", communicates our expanded understanding of our roles. The additional focus was initially provided in the Bottom-Up Review, and later with the publication of the National Security Strategy of the United States. The subsequent publication of the National Military Strategy confirmed the role of the Navy and Marine Corps, including their Reserve Components, as part of the nation's overall strategy. It requires us to accomplish two military objectives—promote stability and thwart aggression.

Operational Maneuver From the Sea

"...From the Sea" and "Forward...From the Sea" provided a foundation for our success. Since defining our strategic concept, we have clarified and expanded upon our traditional expeditionary focus. The expeditionary focus is our commitment to forces designed for forward deployment and rapid response.

Our new operational concept for forcible entry from the sea, Operational Maneuver from the Sea, is an evolutionary approach to power projection that applies the principles of maneuver to a maritime campaign. This visionary enhancement provides a task force commander with the ability to maneuver combat forces over and from the sea exactly as on land. The traditional impediment of the water's edge becomes but a seamless coordination feature on a map.

As an integral part of the Total Force Marine Corps, the Reserve Component works with the Active Component to build interoperability consistent with our strategic and operational concepts, so that we can easily be assimilated for close combat when the need arises. Not only do we train with the Active Component, but we will share the same future battlefields. Operating from a common strategic framework combined with common doctrine and tactics will frequently make naval expeditionary forces the theater commander's joint force of choice to respond to evolving crises and missions.

FUTURE CHALLENGES

In the course of discussing the Commandant's five pillars and the Marine Corps Reserve, I have alluded to many challenges facing the Reserve Component. Clearly, our greatest challenge is the fundamental requirement to maintain our existing warfighting capability and readiness to fight and win on the battlefield. The Congressional Conference Report language that supported the final legislation setting forth the Marine Corps' strategic concept as the nation's force in readiness said we "must be ready when the nation is least ready." This guidance applies equally to the Marine Corps Reserve. Our other challenges fall into five separate categories.

Personnel

The first challenge lies in improving our personnel processes. We have considerable work to do to attain our authorized end strength of 42,274 Marines for the Marine Corps Reserve by the end of fiscal year 1996. The turbulence following the BRAC related reorganizations and relocations is not over, and it will require our best efforts to meet this objective. We must also maintain command emphasis on our retention rates as a way of increasing our end strength. In addition, our military occupational specialty qualification rates remain lower than our standard of 95 percent.

Resources

A second challenge concerns confronting our equipment shortages. Our equipment continues to age, and become more expensive to maintain. Replacement costs are also taking a larger share of our Procurement Marine Corps budget. To preserve our resources, we must optimize our doctrine, training and education processes. The need for the Total Force Marine Corps to be a seamless, integrated force has never been greater.

Efficiency

The third challenge requiring our attention is efficiency. We must ensure that we are intelligently employing our Marines. Our emphasis is to hone combat readiness for our traditional roles to fight and win the close battle. To this end, we will use Reserve Component forces to augment any exercise which employs forces larger than the battalion/squadron level.

Guidance at the national level does address the potential to use the Reserve Component for emerging non-traditional missions and taskings prior to mobilization. The new missions include humanitarian and disaster relief operations, counternarcotics operations, peacekeeping operations, crisis response, and civil disturbance operations. We are receptive to examine methods to capitalize on the training and readiness opportunities afforded by these new missions providing they are not detrimental to our warfighting readiness. Our challenge is to continue our emphasis upon improving our warfighting capability to meet conventional threats, while seizing opportunities to contribute to the newer types of missions. One method used to date is through the use of volunteers.

In UJE Kristal 95, a Secretary of Defense initiated, United States Commander-in-Chief Europe directed, combined/joint engineer exercise was conducted involving both Active and Reserve Component forces. The purpose of the exercise was to repair and upgrade the trauma hospital in Tirana, Albania. Marine Forces Reserve provided 172 engineer, medical and military police personnel for a period of 90 days. Twenty-six sorties of C–130 aircraft were also provided to lift the personnel and their equipment in and out of Albania.

In Kotzebue Care 95, Marine Forces Reserve medical and dental personnel provided care to Native Americans in Kotzebue, Alaska. During this two week operation, 1,183 Alaskans received medical, dental, optometric and pharmaceutical services totaling 6,217 procedures. Forty-eight Marine Forces Reserve personnel participated in the operation.

Marine Forces Reserve has also supported numerous other civil-military projects in the areas of education/job training, health/human services, and engineering/infrastructure construction. Emergency assistance has also been provided to civilian authorities following the bombing of the Alfred P. Murrah Federal Building in Oklahoma City, Oklahoma. The Civil-Military Assistance Office at Marine Forces Reserve keeps abreast of the increasing number of requirements and coordinates our assistance programs.

We will continue to be creative in our planning to employ the Reserve Component. Our planning goal is to intelligently utilize the Reserve Component while concurrently maintaining our combat readiness and efficiency. We seek peacetime service and training opportunities which will help to enhance our warfighting readiness.

Time and Space

Often forgotten in strategic and operational discussions regarding utilization of the Reserve Component is the fact that time available for training is very limited. Our requirements must generally be addressed within the drill periods and annual training provided to reservists under the law. Because we cannot change the length of the day, we must be more efficient in our daily operations and training.

I mentioned our use of simulation in training as a mechanism to improve our efficiency. Another method is through the Selected Augmentation Unit Program, in which small groups of reservists work at an Active unit for a period of time. This program has a mutual benefit. The reservist gains invaluable military occupational specialty experience, while the assisted unit obtains help with its daily mission or work backlog. During fiscal year 1995, the Fourth Service Support Group provided 52 Selected Augmentation Units totaling 1,531 personnel in support of Active duty operational and support commands. Assistance was in such areas as supply, maintenance, engineering, and medical/dental readiness. Similar utilization of this program is expected this year and in fiscal year 1997.

The infrastructure changes resulting from BRAC decisions are also continuing challenges to be addressed. There are significant start-up costs associated with the relocation of a Reserve unit. BRAC 93 had a major impact on the aviation units of the 4th Marine Aircraft Wing, and the relocation of some units may require from three to five years in the new site to regain operational readiness. We are still within this period for the BRAC 93 decisions, and are just starting to evaluate the BRAC 95 decisions. We are working to minimize the transition timeframe, and provide the cost savings envisioned by BRAC. Our efforts are being coordinated within the Department of the Navy.

Jointness

The fifth challenge is preparing the Marine Forces Reserve for the 21st century in the area of jointness. Over the past two decades we have made substantial progress in integrating the Active and Reserve Components of the Marine Corps to the point that the Total Force Marine Corps is now a reality. As events have proven in our exercises and operations, and particularly in the Gulf War, the Total Force Marine Corps is never deployed alone. This is a joint world, and all services must work together to meet all the requirements of our National Security Strategy.

The Total Force Marine Corps has a lot to offer given our core strengths of being able to (1) coordinate the combined arms employment of our MAGTF's, and (2) operate where there is no supporting infrastructure. To ensure that those who make critical decisions understand our capabilities, and to reduce operations/personnel/deployment tempo, we are placing Reserve Component Marines within Unified Commander-in-Chief staffs and the Joint Staff.

Three of our Reserve Component General Officers are currently working in joint assignments with Atlantic Command, Transportation Command, and the Office of the Secretary of Defense, Assistant Secretary of Defense for Reserve Affairs, respectively. A fourth is awaiting approval of an assignment with Pacific Command. Other additional requirements for Reserve general officers have been identified on the Joint Staff and at Marine Forces Atlantic and Marine Forces Pacific. Given emerging requirements to place Reserve general officers in joint billets, in conjunction with Congressional emphasis on the revitalization of Reserve forces, we are requesting an increase in the statutory ceiling on the number of general officers authorized for the Marine Corps Reserve. We currently are authorized 10 general officers. We have proposed this be increased to 16. Statistics show that the Marine Corps Reserve ratio of general officers to end-strength is substantially lower than the Department of Defense average, and any of the other services.

We have also proposed that the position of Commander, Marine Forces Reserve, be held by an officer in the grade of Lieutenant General. The Active Component Marine Forces Atlantic and Marine Forces Pacific are both currently commanded by Lieutenant Generals. The request for Marine Forces Reserve merely conforms the Marine Forces Reserve command structure with that of Marine Forces Atlantic and Marine Forces Pacific.

BUDGET REQUEST

Our budget for fiscal year 1997 for the Marine Corps Reserve is contained in the following table. Amounts shown for fiscal year 1995 and fiscal year 1996 include funds ultimately appropriated by the Congress. Our budget for fiscal year 1997 represents 4.9 percent of the Total Force Marine Corps budget requests equating to 0.2 percent of the Department of Defense budget. The Marine Corps Reserve continues to return to the Congress and the American people a lot of capability for each defense dollar provided.

SUPPORT OF THE MARINE CORPS RESERVE

[In millions of dollars]

Marine Corps Appropriation	Fiscal year—		
	1995	1996	1997
Reserve Personnel, Marine Corps	351.8	378.2	381.1
Operations and Maintenance, Marine Corps Reserve	84.8	102.3	99.7
Total	436.6	480.5	480.8

The Marine Corps appropriation should help defray the cost of the Marine Forces Reserve backlog for maintenance and repair, and complying with environmental requirements for hazard waste management/disposal, air pollution abatement, water quality management, and environmental assessments. The fiscal year 1996 Marine Forces Reserve maintenance and repair backlog is approximately $1.4 million. Fiscal year 1996 environmental costs are projected to be $2.9 million, as is fiscal year 1997.

Approved fiscal year 1997 construction projects are budgeted at $2.4 million. Unfunded projects related to BRAC decisions include work at the Naval Air Station, South Weymouth, Massachusetts, the Naval Air Station, Alameda, California, and the Navy and Marine Corps Reserve Center in Lawrence, Massachusetts.

CONCLUSION

Ready, relevant and capable today, tomorrow, and the day after tomorrow, the Total Force Marine Corps is preparing for the future. I have outlined the Commandant's five pillars for an effective Marine Corps and clarified their applicability to the Reserve Component. In the process, I have provided information on our fundamental programs and policies including our commitment to warfighting readiness. Selected strengths of the Marine Corps Reserve historically of interest to the Committee have been updated. These include personnel quality, our Inspector-Instructor and Active Duty Support Program, exercise opportunities, evaluation programs, and equipment status. Key challenges to our combat readiness, and the integration of the Total Force Marine Corps as a combined arms asset available to National Command Authorities, have also been described.

Mr. Chairman and members of the committee, our focus is forward looking even as we continue to participate as a full partner in the joint sea-land-air team of national defense. We know that we must make better use of our personnel and equipment resources, and more efficiently plan the utilization of our Marines and the limited time we have available for training. While we review, debate, even struggle with these challenging issues, our purpose remains resolute. The means may change. The time and place may vary. But, our mission is the same. We are warfighters, first and foremost, designed and equipped to seamlessly augment or reinforce the Active Component to win in battle.

The Total Force Marine Corps is a national asset in times of crisis. Our core capability as a combined arms expeditionary force-in-readiness is unique among the services. We look forward to enhancing that capability and continuing our service to the Nation. I thank Congress for its historic support of the Total Force Marine Corps, and I request your continued support to ensure our readiness, relevance, and capability to contribute to our Nation's defense in the future.

Biographical Sketch of Maj. Gen. Thomas L. Wilkerson

Major General Thomas L. Wilkerson is the Commanding General, Marine Forces Reserve, New Orleans, La.

General Wilkerson was born on February 11, 1946, in Pocatello, Idaho. He was graduated from the U.S. Naval Academy in 1967 (B.S. International Relations) and was commissioned a second lieutenant in the U.S. Marine Corps. After completing Naval flight training, he was designated a Naval Aviator in June 1969.

General Wilkerson's formal military education includes The Basic School, Amphibious Warfare School, the NATO Senior Officers' Course, Armed Forces Staff College, and the National War College. He has served two tours of Joint staff duty, first as the action officer on national military strategy in the Plans Division of Marine Headquarters and, the second, as the Marine Member, Chairman's Staff Group, Office of the Chairman, Joint Chiefs of Staff.

General Wilkerson has spent most of his Fleet Marine Force career in fighter/attack aviation. He has over 3,000 hours flight time in the F4 Phantom and the F/A–18 Hornet. He is a graduate of the U.S. Naval Fighter Weapons School and the U.S. Navy Electronics Warfare Officer's School.

His squadron duty includes department head tours as Aircraft Maintenance Officer, Operations Officer, Administrative Officer and Executive Officer. He has instructed fighter tactics at the Marine Air Weapons Training Unit and served as a Marine Exchange pilot with the Royal Air Force. From 1985 to 1987, then Lieutenant Colonel Wilkerson commanded VMFA–251, the Marine Corps' sixth F/A–18 Hornet squadron.

In 1990, then Colonel Wilkerson, joined II Marine Expeditionary Force, Camp Lejeune, N.C., as the Deputy Assistant Chief of Staff for Operations. During the same tour, he served as the Special Assistant to the Commanding General, Marine Forces Central Command in Southwest Asia during Desert Storm. In April 1992, he was advanced to brigadier general and assumed duties as Deputy Commanding General, II Marine Expeditionary Force, Camp Lejeune, N.C. Later that year he was ordered to Headquarters Marine Corps for duty as the Assistant Deputy Chief of Staff, Plans, Policies and Operations (Plans). He was advanced to major general in June of 1994.

Major General Wilkerson and his wife, the former Lynn Reid of San Diego, Calif., reside aboard the Naval Support Activity New Orleans, New Orleans, La. They have two daughters, Jennifer Lynn and Catherine Aileen.

RECRUITMENT

Senator STEVENS. Thank you very much, gentlemen.

When the regular forces chiefs were here, the impression I had was that almost 20 percent of the force must be recruited anew each year, some 90,000-plus in the Army alone.

Are you facing a similar problem in terms of recruitment? Is that a major problem for your forces? General?

General BARATZ. The answer is yes. We mirror the active force. We have to recruit roughly 40,000 people a year to bring them into the Army Reserve. It is absolutely clear to me that there are two pools. The one pool is initial-entry people, who are first-time entries into the service. The second pool is prior-service people. Both pools, I think, are under horrendous pressure today. Because downsizing in the Army is almost complete, the prior-service pool, which had grown for some years, is now diminished.

The second item is that we are experiencing clear signs that the pool of initial-entry trainees, for a variety of reasons, and no single reason, is drying up, probably due for: a robust economy that is historically bad for recruiting; the fact that people perceive the military forces as not a place to invest themselves in a career makes them view the Reserve components the same way; and due to the fact that we do many different missions today that we did not do in the past, and it is yet to be determined what the effect is.

But, although we will make end strength today, and we will in the Army Reserve make it at the end of this fiscal year, we will not get our initial-entry people in and will probably fall 3,000 to 4,000. However, the lag will be made up in better retention efforts. However, there is a limit to how long we can do that, and we have to look toward the future. I think we have problems in the initial-entry training business in the future, sir.

Senator STEVENS. Admiral Hall.

Admiral HALL. Well, the storm clouds that we talked about in prior hearings that were a couple of years away are here for us. The pool of 17- to 25-year-old people are less in the country. The propensity to join the military is down although we hope that has leveled out somewhat.

We really feast on the people that are coming off active duty. I get 80 to 90 percent prior service, so as the drawdown is complete on the active side, I am not going to have that pool. And we turn over 20 to 25 percent of our people per year. So, it is a great challenge for us.

We need to ensure that our advertising budgets are kept up, that our educational benefits are kept up to appeal to the people. But it is going to be a great challenge. We think we will make our end strength but I would probably place recruiting and retention in my top one or two areas of emphasis in the forthcoming year.

Senator STEVENS. General Wilkerson.

General WILKERSON. Sir, I would echo what both Admiral Hall and the General have said earlier. We are making our mark this year in our recruiting. It is a challenge but we are making it and it is becoming more difficult. We are focusing not only on recruiting but on retention and the reason for that is we have so much turnover in young people who come to us for the first year, that we have almost a 50 percent turnover rate as we draw people in the first year because they get jobs in the civilian community and want to move or other factors, and that is the area that we are focusing on, where we can make the best gains.

Fifty percent of my force is prior service. The reason that is so important to us, we want to keep those people. They are trained. We have invested in them. If they stay a marine with us, they make a great deal of difference to us in terms of the quality of our Reserve force and its capabilities.

It is a challenge right now for recruiting but we are making it. The real focus of our effort is retaining the good, young people that we get through the service pipelines now. Thank you.

Senator STEVENS. How about you, General McIntosh?

General MCINTOSH. Mr. Chairman, in fiscal year 1995, we completed the year with approximately 100 percent manning. This year, in 1996, we will do the same but that is a product of the active force, continuing to draw down and a slight drawdown of about 13 percent in our force structure.

Like Admiral Hall said, about 9 out of every 10 of our reservists we recruited for the last 2 years have had extensive prior service experience, normally in the Air Force, but in the other services, also.

As the active finishes its drawdown, as we have to turn to recruiting more and more nonprior service individuals and certainly in the recruiting area we need adequate resources both in advertising and appeal in terms of quality of life benefits, to get young people that come out of high school and out of college to join us who have not served before.

RETENTION

Senator STEVENS. Now, when we last visited with some of your forces overseas, we were told in repeated instances of multiple deployments in the same year by Reserve forces. Have any of you done any studies of the impact of these deployments on retention? What happens to people that do have multiple deployments in the same year or two with regard to their signing over again in the Reserves?

General MCINTOSH. Mr. Chairman, if I could jump in here on that, we have a couple of surveys we have done over the last 2½ years that may give us a little data. We find that our retention level has maintained an all-time high because people like to be members of the first team, like to be involved, like to utilize their training.

The key is balance, and by balance I mean if they know well in advance so they can tell their employer that they are going to be gone for a 30-day period or 45-day period or 3-week period once or twice every 18 months or so, then they could plan their lives around that.

I think the key there is to continue to use Reserve forces, recycle them in and out of the theatre in a timely manner, turn to volunteers and rely on balance. Our OPTEMPO in the Air Force Reserve has sustained a very high level since Desert Shield and Desert Storm.

I mentioned the two surveys. The first survey, to the individual, the reservist, is about 2 years old now. Almost 75 to 80 percent said they could do more, but they also said do not waste their time. When we come out to the unit, we want to perform productive missions for the Air Force. We have a great amount of experience, we do not want to be left behind a desk trying to do some paperwork or some kind of training.

In the second survey, to the employers which was just received last month, about 80 to 85 percent of our employers remain dedicated to allowing their reservists to serve—if they had prior service notification, if that notification was in advance and was scheduled and was not a pop-up, tight notice. So, that was the result of the survey. That looks good to us. There is still stress out there in OPTEMPO both among the families of the reservists and the employers, but it is going well for the Air Force Reserve.

ARMY RETENTION AND RECRUITMENT

Senator STEVENS. General Baratz, you have had the really double duty, have you not, with Haiti and Somalia, and all of the rest and now into Bosnia. What is that doing to your retention and recruitment?

General BARATZ. Let me say that, with our force, we are different than the Air Force. We are not, first of all, a short-deployment center. I have 61 units in Bosnia, Hungary, and Germany as we talk right now, and the bulk of those units are in there for 270 days, which is what the PSRC authority allows us to call them for.

Nevertheless, my medical piece of those units are only in theatre for 120 days because of the different problems you have to deal with for medics. And we have to be aware of that.

We are doing pretty much what the Air Force does, but we are structured differently. We are in the management business, and I am trying not to make multiple callups. Those units that I called up for Haiti—almost 40 units—and a very low number of units in Somalia, which was probably not the base case with, we are trying to make sure, hopefully, be exempt from call up for peacekeeping or peace enforcement for 3 or 4 years.

I think, if you do not manage this very closely and you do not do the things that General McIntosh says, which is give adequate notice to the employers, to the soldier, and to his family that they are going to be deployed, you are going to have substantive problems on your hands. If you do not manage how you callup your units—I am in the unit business not the individual business per se—you are going to have worst problems on your hands.

The one thing I think we need to look particularly close at as we get done with Bosnia—and I have commissioned a substantive survey through a private contractor to talk to every soldier we have called, not once but twice—is the amount of time that we call them up for.

Basically before Bosnia, we have called for tours of 180 days or a 6-month rotation. For whatever reason, that seems more amenable to employers than anything that we are doing now. I am not talking about a major regional contingency, and I have yet to feel the impact of the 270-day call on the other people.

And so I think there are some questions left out here, and I am not sure enough yet to give you a definitive answer as to how some of this is going to affect my retention. But I think there is an impact. There is a culture impact, and we have to understand it.

Senator STEVENS. You haven't been substantially impacted by recent calls have you, Admiral Hall?

Admiral HALL. We have not. Haiti, we had about 200 people. Today, I have 151 people involved in a Bosnia operation, not in-country, mainly in support. I do not have a large amount of units. We have been working very hard, though, to assess to impact of the multiple callups and I would only echo what my fellow Reserve chiefs say.

One of the things that we have concentrated a lot on are the employers and our chief of our service has, in fact, written each and every employer of a recalled reservist thanking them on behalf of our Nation for the service. We do not know whether that will make a difference but we certainly have to work both the employer and the employee end, and if we do have the state of world affairs continued crisis that we cannot plan for, that we do not know unplanned callups, I think that could be more effective than the ones we can plan.

As long as the reservists can plan their job and their lives around that, I think it will be all right. If we have unplanned ones, that is harder to deal with in both cases.

Senator STEVENS. How about you, General Wilkerson?

General WILKERSON. Sir, I would echo what they said and add one thing. We are seeking to more gainfully employ our Reserve forces more frequently. There is a natural tension in that. The research that they are doing, the research that we are doing for youngsters who are leaving the Marine Reserve force tell us we have not reached the point where people are voting with their feet. But sooner or later we will find that point and we just have to be careful as we approach it that we do not go over and that is the tension that are concerned about.

We do the same thing that the Navy does. We speak regularly to the employers. We use the ESGR regularly to talk in all of the States where we have Marine Reserve units. The object in the exercise is to make sure that we do not wear out the young people who are volunteering to be with us and do these things.

READINESS

Senator STEVENS. The staff just told me we have terms like tier readiness, flexible readiness. Does that mean that each part of your force knows who is next to be called up? Do you really have sort of echelons and if you call them up, then they go to the back and another echelon comes up and is prepared to be ready? How do you determine how often these people come forward?

It would seem to me, and this is what we ran into, General McIntosh, in our questioning there in Europe, was that there were some pilots that had been called up and they were in Iraq and then they were in Bosnia and they were home and then they were back again going off to something—I guess it would have had to be into Korea-readiness probably, but are you having multiple callups and pilots as a deterrent to retention?

General MCINTOSH. Mr. Chairman, let me clarify one point there. We have not involuntarily recalled anyone in the Air Force Reserve since Desert Shield and Desert Storm where we recalled 23,000 Air Force reservists. They have all come as volunteers.

Senator STEVENS. I understand that, but are they requested to volunteer more often than we should be calling them into that category?

General MCINTOSH. We are rotating units in order to abate some of that problem. We are telling our commanders loud and clear when our reservists say enough is enough, we need to back off and backfill that particular hole in that unit on a volunteer basis with someone who has not been recalled recently.

We do have some weapon systems, though, that tend to be required more than others. The major command in the Air Force that is gaining them and using them over there has been very, very good about giving us advance notice and advance scheduling. But certainly people are feeling the stress and they would want to talk to someone visiting them about the stress they are under. They are doing it pretty much on a volunteer basis for the Air Force.

Senator STEVENS. Any other comments, gentlemen?

[No response.]

Senator STEVENS. Senator Inouye.

MEDICAL PERSONNEL

Senator INOUYE. Thank you. I would like to follow up on General Baratz's mentioning of medical personnel. I note that all of the services have shortfalls in medical personnel and, in fact, the Reserve forces policy board said that this is one of the major problems primarily caused by conflict between Reserve duty and private practice. What is the status today? Do we have enough doctors?

General BARATZ. Again, Senator, I can only speak to my own people. First of all, I have to tell you I have great empathy for our medical people, particularly the professionals. We have got to be careful how we handle the professionals because when you call an orthopedic or a thoracic surgeon to the colors, he has got to have more time, if possible, than less time.

He has his operations scheduled out for 5 or 6 weeks. If he is a private practitioner, he has to get a local person to come in and replace him, or some other activity has to be done. Even now, if he is in an HMO, he has a contractual responsibility. If he is a young doctor, he has a fairly hard financial nut to take care of since he has just bought his equipment and set his office up.

So, we have worked hard in the Army Reserve to focus, first of all, on building units that will backfill hospitals. We concentrate in putting medical professionals in them whose backgrounds—large hospitals, clinics, and VA medical work—will make them fit right in.

Nevertheless, we still have private practitioners and individuals who, for whatever reasons, present problems. We try to handle those on an individual basis. It has definitely affected the retention in the medical community in the last 5 or 6 years, particularly since Desert Shield and Storm when we called such large numbers of medical professionals up.

We have created several activities that make it easier for them to drill and to perform in units. I think that, slowly but surely, we are coming to grips of how to deal with the medical community. But it is a problem in itself, and we ought not to kid ourselves that it is not a problem.

Senator INOUYE. Readiness being very important to all of us, do you suggest that maybe we should downsize the Reserve medical forces and increase the regular medical forces?

General BARATZ. I would say no. I do not think you need to downsize the Reserve forces at this point. I have almost 70 percent of the Army's medical force, and we have met every contingency they have faced. We have done some innovative things to bring doctors into the service. One of those things is a detachment called the NAAD, National Army Medical Department augmentation detachment. What the NAAD does is pool our doctors in the Army Reserve so they can serve with a local unit for annual training and for their drills so they can be close to their homes. However, they are assigned to a ready unit for purposes of going to a contingency or MRC. If possible, once every other year when they go to annual training they will serve with the unit that they are assigned. This goes out of its way to take care of doctors, but I think you have to do that.

On the other hand, one of the great benefits that has come out of this Congress, in my opinion and our medical people's opinion, is the income insurance that you passed and that will become effective October 1. One of the biggest worries that the medical people, as well as any entrepreneur had, is how to make it on the base pay of a major or captain or lieutenant colonel when they are making so much more money and also have bills that go with it.

The $5,000 a month maximum of this voluntary insurance will, we think, substantially improve the retention of doctors in the Army Reserve and, I would assume the other Reserve components. So I expect to see substantial improvements here after the first of October this year when we can start offering this insurance.

I would also tell you that in the last 3 or 4 weeks I have just come back from visiting the people we have called to the colors at the hospitals in Wurzburg, Heidelberg, and Landstuhl. There is almost uniform consensus that their biggest problem is that they do not have such income insurance now. Nevertheless, most of them will probably stay because we have finally addressed the income loss problem.

NAVY MEDICAL

Senator INOUYE. Admiral, is that your problem also?

Admiral HALL. Just a couple of comments. We have about 12,000 medical reservists. We would like to grow that to about 16,000. We have billets and requirements. We have had two of our best years of medical recruiting but we are competing for the same person that the civilian world is looking for and it is very tough, cardiothoracic surgeons, and those are in high demand.

We are manning our four fleet hospitals. The active side has six and then the rest of our manning is for Conus backfill and backfill during a particular crisis. One of the best things that I think that all of us have been able to do, and the General mentioned it, is to provide a flexible drilling schedule for the people, because particularly many of the surgeons, and others, do not fit well into just drilling on a Saturday or Sunday and so we have empowered them to go to the medical treatment facility where they drill and design their own schedule.

If they could operate on a Wednesday afternoon or a Tuesday afternoon, that is their drill and we are able to accomplish that. By giving them that very flexible schedule, they can better match up the requirements of their civilian job with their military and we think that is going to make a difference.

But again, the competition for the medical resources are very high out there and we want to grow. We have had two good years. About 50 percent of all of our recruiting are medical people and so I do not think we ought to reduce the reservists involved in the medical area. We provide all the Marine Corps' corpsmen and all of theirs, so I think we need to maintain our level and I would like to grow toward an ultimate structure of about 16,000 billets.

AIR FORCE RESERVE MEDICAL

Senator INOUYE. General McIntosh.

General MCINTOSH. Yes, Senator; of the 10,000 medical people in the Air Force Reserve, about 6 to 7 percent are physicians and my only recruiting and retention challenge is in the physician area. I say about 85 percent, with doctors. The rest of my retention of medical people is very, very good.

As far as the medical force relative to the Reserve component, relative to the active component that you alluded to, I think the Air Force works that balance very hard and has got it just about right. I think the mobilization insurance is key for doctors. We need to continue that, and then as we beddown medical units, both now and in the near term and the long term, we have got to pay attention to demographics. We need, as a service, to put our medical organizations near those centers of population where we can recruit and retain.

AIRCRAFT

Senator INOUYE. Admiral Hall, reports have suggested that the Reserve C–9 aircraft are ready to fall apart. You are spending a lot of money trying to keep them together, and now we have been told that maybe the Air Force is going to take over all Reserve support aircraft. Do you have any thoughts on that?

Admiral HALL. A number, Senator. No. 1, I think the issue of the ownership and operation I believe has been decided in that the individual services will retain the ownership of their transport aircraft, but we will enter into joint scheduling for efficiency and economy, and we support that.

Our aircraft are safe and effective, but they are aging. That is how I would describe our C–9 fleet. Due to Congress' very good help in the seventies, we purchased 27 of those used C–9B's. We have flown them to maximum utility.

We hold 85 percent of all of the Navy's requirements for ship movements and others. We do not compete with the Air Force. They have the long haul. We have the intratheater type of airlift.

The aircraft are scheduled normally to live to about 38 years of age. We have one which is 28, and the average age is 22, and so we are approaching a time in which we need to consider replacing those.

You touched on two other areas which are problems. The engines, of course, were built back in the fifties and sixties technology, and do not meet the environmental standards, and so we need to put hush kits or new engines on them.

The navigational equipment does not have the GPS, and many of the new systems to do international travel under FAA standards. That needs replacing.

It is my judgment and view that to put a lot of money into aging aircraft is not the best way. We ought to look for commercial off-the-shelf aircraft that the developmental costs are already in which will meet our requirements, and that is a more productive and economical way to do it, and we need to start that now.

Senator INOUYE. Now is the time to tell us. What kind of aircraft do you want?

Admiral HALL. The type of aircraft I need, of course, the commercial concerns address, but it needs to haul between 100 and 122 passengers, it needs to have state-of-the-art engines, state-of-the-art navigation, a cargo door on it. It needs to be already developed and on the shelf, and commercial concerns that can provide aircraft like that should be encouraged to do so.

Senator INOUYE. How much would it cost?

Admiral HALL. About $40 million each appears to be—$38 million to $42 million. The range of type of aircraft we have looked at that would meet those kinds of requirements to carry us well into the next century would be about $40 million, give or take a bit, off the shelf.

Senator INOUYE. Are the other services having the same problem with transport aircraft?

General BARATZ. I am not. My business in aircraft is primarily small, fixed-wing C–12's, and I have a fairly modernized fleet. My entire fleet is war-driven. I have one unit in Tuzla as we speak today. I have a second air unit that is on its way home from Korea.

Senator INOUYE. General Wilkerson.

General WILKERSON. Sir, we have two C–9's, I believe, that are of the same vintage as Admiral Hall's, and, in fact, fall under his procurement, and so our problems mirror exactly what his problems are.

General MCINTOSH. The Air Force Reserve has no force structure dedicated to that. The active Air Force and Air Guard do it all.

Senator INOUYE. Thank you.

LANDING SHIP TANK [LST]

Admiral Hall, two LST's were assigned to the Reserves. Do you have enough personnel to man them?

Admiral HALL. Yes, sir; the U.S.S. *Frederick*, which is in Hawaii, and the U.S.S. *Lemoyne County*, which is in Little Creek, were the two that were assigned in order to address the 2.5 lift and to better help the Marine Corps.

We are able, by positioning those on each coast near our major demographic centers, man them adequately, and adequate manning in that case is 90 to 100 percent. We would not be able, if we had both of them located at any one site demographically, but by doing this distribution we have been able to.

I am very pleased with both the way the U.S.S. *Frederick* and the U.S.S. *Lemoyne County* are operating, fully integrated in the force, and are adequately manned.

COMBAT SUPPORT SERVICES

Senator INOUYE. Listening to your testimony, one may get the impression that everything is fine. Do you have any challenges that you see over the horizon, General?

General BARATZ. I am sorry I gave the impression that everything is fine. It is clear to me that the challenges in recruiting initial entry people for us is a substantive problem, and I think it is probably growing.

The second thing is equipping my force, which is always for a number of reasons a problem for us, Senator. I am the primary provider of the combat service support for the Army. And, in this process, the Army tends toward big buys. When you talk about tanks, Bradleys, and we talk about helicopters, that primarily is not my business.

My business is mundane, every day combat service support, and I worry about things like helmets. I worry about rough terrain cranes. I worry about floodlight sets. I worry about all those things that I need. Although the Army is downsizing, because such a small portion of the active Army was involved in combat service support, I get a very small cascade.

I am not complaining about that, but somehow there is an impression that the cascading from downsizing has made us well. The truth of the matter is that much of what I deal with did not cascade because it just did not exist in the active component and could only be found in the Reserve.

So as we look at my equipment, you need to realize that my equipping problems are entirely different from the active component. I provide 100 percent of the force projection forces of the Army that will take them out of the country and put them into overseas theaters.

I have, as I told you, almost 70 percent of the medical, 98 percent of the civil affairs, and 84 percent of the chemical units in the Army. I need to have a modern flow of equipment, and it is a challenge for us.

UNFUNDED REQUIREMENTS

Senator INOUYE. Have you submitted your wish list?

General BARATZ. Yes, sir; I took the opportunity, and I appreciate the opportunity.

Senator INOUYE. Admiral.

Admiral HALL. We have also worked with the staffs to indicate some of our wish lists and items that we think need addressing.

All is not rosy, as I mentioned. Recruiting is going to be a tremendous challenge, and we think we could use a bit more advertising dollars, because advertising is very much of a key.

One area which is of concern are our facilities now that the BRAC process is at least—now that the third one is complete. We have left this group of facilities, and I think we have to again concentrate on making those as good as they can be, and to do that you need proper base operating support funds, and our backlog of critical maintenance has been growing. We need to arrest and stop, and level that off.

So an area of concentration that I think would be productive for funding is to address those kinds of shortfalls.

Additionally, as we put more and more reservists out Conus, we are finding it is costing more in travel costs as one would expect, and so within our travel funds and Reserve personnel Navy [RPN] we do have some shortfalls which we have indicated on that list. But that is in order to get the reservists deployed, helping the deployed forces, but that is more expensive to do that than in Conus.

Those are my major areas of concentration.

Senator INOUYE. General Wilkerson.

General WILKERSON. Sir, I would echo in part what Admiral Hall has talked about. We are a tenant in many of the installations where we call them Naval Reserve training sites and are colocated. There are unfinished parts of business from BRAC that require us to make additional expenditures to bring units that otherwise would go away up to a speed that we can maintain them.

There are two other instances that I feel especially strong about. The first is that we need to continue our progress that you all have helped us to start in purchasing equipment that allows us to mirror the actives because of the speed with which we are required to call up and move in the event that there is an operation.

The total force Marine Corps is just that. We cannot meet the requirements of the CINC's without all of us, so the expenditure on CH–53 Echoes has been good for us, the movement for our tanks, for our LAV's and the like, but we need to maintain those systems to the level of compatibility with the actives so that we can instantly integrate, so that we can train together, and those are very much on the front of our minds as we talk with you and as we look forward to moving in the future.

You have sustained us over the last few years. We have made improvements. There is more yet to be done to keep these at the level that we can satisfy the needs and the requirements that have been levied against the entire Marine Corps.

Thank you.

Senator INOUYE. General McIntosh.

General MCINTOSH. Sir, we have submitted to the staff some shortage lists in the areas of real property maintenance and depot maintenance accounts, also facilities that were mentioned earlier, and a little bit in O&M.

The thing I would like to last focus on is the criticality of Congress continuing to fund our special equipment list. We are compatible with the rest of the Air Force today in terms of equipment modernization partly because of what Congress has done to us relative to the list we submit each year. It is very important that that continues. We are treated fairly by the active duty Air Force, but modernization is always a challenge with older airplanes and the requirement for new technology.

One of those new technology areas that is on our list this year gets us into the innovative area of better ways of doing training for the reservists. Whether it be computer-based training or distance learning, some training at home that will be done over the teleconferencing net, those are the kinds of things we need to fund up front and lead turn this information age that we will be confronted with as we try to recruit the brightest and best nonprior service people at the turn of the century.

Senator INOUYE. Thank you very much. Mr. Chairman, just one short one.

OKLAHOMA CITY BOMBING

General Wilkerson, I read your statement, and there was a touching paragraph there on the role the marines played in the Oklahoma bombing, and it is not something that the public is aware of because very few people read the prepared statement other than our staff and members of the committee. Maybe the folks in the back would like to know.

General WILKERSON. I appreciate that opportunity. The Commandant has shared that, in fact, everywhere that he goes, and many of us as well, but what it reflects is the common basis upon which the Marine Corps builds a total force, because in the bombing in Oklahoma City, as many will remember, one of the young people who was killed in the blast was, in fact, a recruiting station deputy commander, Capt. Randy Guzman.

Captain Guzman was somewhere in the rubble, unknown and unfound at the beginning, and among all of those who were in the emergency response cell of people who came to begin to clear out and to search for folks who might still be alive were several former marines, among them some police officers from New York City.

During the course of the time that they were digging into the rubble they looked up to the far part of the building, where, in fact, no one was allowed to go because it was still such shaky ground that they thought it might collapse, and they saw a set of deep blue trousers with a red blood stripe on the side, and because they had been marines, they recognized that that was the pant leg of Capt. Randy Guzman.

They went immediately to the supervisor at the installation and said, "We have to go up there and get Captain Guzman. We have to do it now." And he said, "You do not understand, you cannot go up there. That is a part—we cannot go up there yet because it has not been certified that we can move people there." They said, "We are willing to take the risk. Let us go."

They gave them jackhammers. They went up to the far side and gave them permission, and people began to watch as they drew up there and started to move the rubble away and removed Captain Guzman's body, and as they did that, as it turned out someone brought a flag, and they covered his eyes and closed them and brought him down and wrapped his body in that flag, and as they brought him off the rubble, twice the rubble had shifted enough they thought that they were actually going to lose them because it was shaky, but they brought them all back down, and as they brought them all back down and carried him away, everyone stopped work, and, in fact, a lot of the people who were standing there took off their hats and put them over their hearts as they walked away.

And the important part for us was when they finished all of that, some reporters who had been in the area went back to those four marines and marine reservists who had removed Captain Guzman's body and said, "Why did you do that," and their answer was very simple and very much the way we look at things.

They said, "That is what we have been taught since we were in boot camp or in the basic school, and we would have expected any other marine to do the same thing for us," and that is just about as plain as you can make it.

Thank you, Senator.

Senator INOUYE. Thank you.

Senator STEVENS. Thank you. Senator Cochran.

Senator COCHRAN. I would yield to my friend Senator Domenici, who was here before I was.

Senator DOMENICI. That is OK. I can wait.

Senator COCHRAN. Well, I will be here as long as you are. [Laughter.]

HURRICANE HUNTERS

General McIntosh, we are very proud of the fact that Keesler Air Force Base, we have the hurricane hunters—the 53d Weather Brigade the official name is. We call them the hurricane hunters, and they are upgrading the airplanes, as you mentioned, in response to a question from Senator Inouye, trying to improve and modify the force. It is one of the big challenges.

They have the old, aging 130–E's there, and we are trying to upgrade to 130–J's. Some funds were made available by this committee for that purpose last year. I want to ask you how that is going, and whether or not there will be continued needs for additional funding, especially for spare parts and other separate line funding for that project.

General MCINTOSH. Senator, those documents, funding documents are starting to flow. There is a requirement for additional moneys for support equipment for that aircraft. As you know, it is a brand-new aircraft. We are still developing what the crew complex ought to be, and exactly what the aircraft they are going to cost in the configuration that we need them.

Since we will have the first three airplanes there we will need to continue to make that a compatible squadron that has all the same model of airplanes, so that effort is the smart thing relative to that particular squadron. They served looking into 17 hurricanes last year, flew over 500 sorties, and doing that, one of the busiest years they have had. They were certainly an effective force, and we are proud of the job they are doing.

Senator COCHRAN. I know that Senator Inouye's question was what—maybe needs that have not been reflected in this budget request. I was going to ask a similar question. General Wilkerson, did you mention the needs that you have that could be funded if additional funds are made available beyond the request?

General WILKERSON. Yes, sir, I certainly did.

Senator COCHRAN. That was the description you gave?

General WILKERSON. Yes; and I also gave the list to both of your staffs to make sure that everyone was aware of, in the event that there were additional moneys available, what the priorities of the Marine Force's Reserves would be.

MOBILIZATION

Senator COCHRAN. I think it is impressive to remember that some of those who were very involved in even the Kuwait City area earlier than anybody else were marine reservists.

General WILKERSON. Exactly, sir, and, in fact, we pride ourselves on the fact that we can tell you how ready we are, and we can make representation for movement, but in crisis or in conflict such as what we did in Desert Storm, we actually show you and deliver, and the Marine Forces Reserve mobilized over 20,000 folks, which is a significant part of our Reserve establishment.

Over 13,000 of those saw service in Desert Storm, including front line units in the ground combat element, in aviation combat, and in the force service support group, and so you saw them there because they were an integrated part of the First Marine Expeditionary Force, and they did what they were supposed to do.

Senator COCHRAN. Admiral Hall, my personal experience has been as a Reserve officer in the Navy, and I recall when I was trying to be a lawyer and also be a naval reservist that it was quite a challenge, and I know more and more today we are seeing those who are serving in the Reserves spending more and more time that is really not compensated by the Navy.

It is not the regular weekend drill, it is not the regular 2-week training duty, or whatever requirements are now. Do you see a dropping off of interest in continuing to serve in the Reserve among naval officers around the country? Is this getting to be too much to bear? Are people being torn so much between their civilian careers and Reserve duties that they are dropping out of the Reserves? What has been the recent experience?

Admiral HALL. Well, frankly, Senator, the problem has not been as much for officers. The problem we have had are a lot within the enlisted area.

Many of the jobs that the officers have are very compatible; 70 percent of my people who are aviators are airline pilots, very consistent, within the Medical Corps, doctors doing that, and so the jobs they do are very consistent. They maintain a high state of training because they do the same thing within the civilian world.

Many of our enlisted rates and grades, particularly in some of the areas of maintenance and others, they do not have a job that is consistent within the civilian occupation, and it is more difficult for them.

But I would go back to General Baratz' point because I think it is very key. When we are able to plan ahead, tell the people, and they can design that particular annual training or whatever it is with their employer, then it works. The unplanned crises, and those kinds of things which continually yank them away, makes it very difficult in some of the areas where there is high unemployment, and a lot of that is within that area, so that is what we have to watch.

But it has been a little bit more on the other side rather than with the Officer Corps.

Senator COCHRAN. I was going to ask General Baratz if there was a substantial dropoff of participation in the Reserves after the mobilization for Desert Storm.

General BARATZ. The answer is no.

Let me also tell you that I have been a pure reservist, and maybe the only one at the table. I came back to the Army about 6 years ago not planning to make a second career out of it, but, for better or worse, here I am.

I was first called back to run the mobilization in Desert Shield and Storm. We looked very carefully afterwards to see what the net effects were. There was some walking away because of the Desert Shield and Storm experience. I think that is probably normal. You had people in the Reserve components that were there, for better or worse, 10, 20, or 30 years, and had never been called up, and I am not sure some of them ever thought they would be, to be honest about it, Senator.

But nevertheless, the force is viable and has worked very well. The wakeup call that we have had in Somalia, and Haiti, and Bosnia now seems to be slowly but surely becoming ingrained in the structure.

Just let me add one thing here. We have to be very concerned about our people when they get into their late twenties and early thirties. The officers and many of the enlisted soldiers are moving up in their companies, and they are developing their families.

That is probably a point in the 5- or 6-year window that is most critical for keeping particularly those high performers you want to keep in the Reserve. They may be having conflicts with families and with jobs. So we counsel our unit commanders to do everything possible to help even if it means moving them out of troop units into less demanding assignments. This way they can get over those kind of humps in their civilian world and then later come back into our troop units. But I think you have to manage this carefully, and you have to work at it. If not, you are eminently correct, we are going to lose people because it is hard to compete.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator STEVENS. Thank you. Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman. Senator Cochran, I wanted to relax a little while. [Laughter.]

RECRUITMENT

Generals, and Admiral, let me just ask one question first on recruitment, and then I will just move off that to a couple of other things.

Since there has been this emphasis in the questions here on recruitment, I am reminded that the Department of Defense's quadrennial review on military compensation is forthcoming soon.

That panel is reviewing the compensation for enlisted personnel, including a small yet relevant situation about a few thousand military men and women being on food stamps. The situation is clearly nothing as it was 12, 14, 16 years ago when we started to build back up, but I am interested as it relates to recruitment.

It seems to me that issue would be very, very relevant to the question of adequacy of pay, and I wonder if you might, each of you, just in a couple of moments indicate to us what kind of thoughts would you have for that quadrennial commission that might assist in the recruitment and retention area?

Maybe we could start with you, General.

General BARATZ. I would say that you are absolutely correct. We are talking about quality people here, and we have had quality people now for several years in all the forces at this table. But to maintain quality people and treat them fairly, you have to pay them adequately and in line with what the civilian community gets.

You have to make sure that those military entitlements, which they need, and which they are entitled to, are paid, and you have to make sure that we do that and we do it on a consistent, systemic basis. If we do not, I think you are right, Senator, we are going to lose people here.

The bottom line is that we make our living taking care of our soldiers. I do not think there is anything more important than that. And that includes basic pay.

Admiral HALL. Well, not to be flip, Senator, I have never seen a pay raise hurt morale. It certainly does not hurt mine, and so I think we need to continue a sustained program of pay raises, and I do not know whether we will ever completely close the gap, but we have to narrow the gap somewhat to an area which is an acceptable standard of living for our people, and if we are outside of that, then we are not executing our obligation to our people.

So I would think that those pay raises need to be where we can reach that point of sustainability so people are not on food stamps, and that it is a good quality of life.

I think the other thing is educational benefits and those kinds of things that help youngsters and appeal to youngsters are going to be absolutely critical, to look for ways, an innovative way to keep those educational benefits being sustained, and we will attract better people.

Senator DOMENICI. Look, Admiral, I clearly understand everybody likes pay raises, and I did not ask my question in a flippant way. It just seems to me everything you are speaking about in terms of retention and recruitment has to do with the quality of people, and the quality of people in the United States indicates they are not fools, and so they want to be paid.

Quality people want to be paid, and when we turned the American military into volunteers, I remember the debate, this giant commitment was made on the floor of the Senate, and the President, President Nixon agreed to parity of pay. We will never have a problem again. Some of you were around during that.

I just want to make sure that the issue goes before that quadrennial commission and not on some side issue. The issue should not be can we afford it. The issue should be to tell us what it ought to be, and then if we cannot afford it, then maybe we have got to do some thinking about how many more years will this work, because I think that is damn near critical—excuse me, really critical to whether you are going to keep them or not.

Admiral HALL. Senator, could I follow up just a moment? I lived through the age also where we closed that gap, but then we stopped for a while in the early nineties, and it was perhaps affordability, but during that time where we started to close that gap I noticed a tremendous difference, and I think our quality of people, and we saw that cycle.

But we stopped, and I think we now need to get back on that slope to close it. So we had some fairly good times in the eighties, but it stopped for a moment.

General WILKERSON. Sir, I would like to echo what my two colleagues have said, but I would like to add the Reserve focus a little bit, because what we are talking about in part for the actives we can all buy into.

But the focus of the young people who are with us in the Marine Forces Reserve almost leads me to say that they are not there necessarily looking for the money as citizen soldiers and airmen and marines, but they do benefit greatly and are attracted by the educational benefits, the opportunity to make use of some of the facilities that are available in terms of medical, commissary, PX privileges and the like that make it attractive for them to come and be with us as part-time citizen soldiers.

I would especially emphasize the educational requirements. I can attract a lot more people in retention when I am able to offer them the opportunity to continue their education while they drill as Marine Reserves, and I have to—one of the things you might like to think about, the Guard has set the pace on this, and right now, for instance, I cannot compete with them on it, because in many States the National Guard is able to offer people educational benefits all the way through college, in addition to what the GI bill would provide for them from their active service.

I can offer them some bonuses right now, but I cannot offer a competitive program. It makes it difficult sometimes to keep some people with us, not because I want to compete with the others here, but because I want to offer them the same kind of educational benefits. That is an important thing to us.

General MCINTOSH. I would say amen to everything said before, but let me add one other item. The thing that really gets sacred at this critical retention level that was spoken to earlier, when every serviceman has to make a decision between employer and family and staying in the Reserve is that age 60 retirement. One of the things that has been given to us in the short run is that at the 15-year point, if you become medically disqualified, or you lose your Reserve position because of reorganization or restructuring, then you will still qualify for an age 60 retirement.

We will need that legislation extended through the turn of the century as a quality of life issue so people make the right decision at that turning point in their career.

AIR NATIONAL GUARD

Senator DOMENICI. Well, while you are the last speaker, let me direct a question to you.

When it comes to the Air National Guard, it is my understanding that the fact that they are sometimes called weekend warriors and the like is really kind of an insult, because what I gather is that because of the experience of the pilots, they are among the best. When they compete with the Air Force, regular Air Force, they frequently win.

And I understand when it comes to Desert Storm, an evaluation of performance and who was most feared by the Iraquis, Reserve units were very high.

Is it not true that with reference to readiness and prowess that what I have just said is a truism with reference to them?

General MCINTOSH. Well, in reference to the Air Force Reserve, and the other part of the Reserve component, the Guard—and General Shepperd is sitting behind me, so I have to be careful what I say here. The Air Force treats us like members of the first team, but the key here is balance, and employing reservists at the right time, on a volunteer basis on a rotation that can be predicted, for the right duration that can be predicted, keeps us a viable member of that first team and doing first team work.

Certainly we are competitive in competitions. Our B–52 squadron, which is brand new, did really well at the latest competition. That is the function of how the Air Force involves us. The active Air Force involves us in their exercises, and the fact is that again we reap the benefit of that high experience. So I think the weekend warrior syndrome or comment is not something that is common place, or a common attitude in the total Air Force any more.

Senator DOMENICI. I note that in the Air Force National Guard and Reserve units that what is happening now is the number of airplanes per unit is being reduced in many cases, and I want to ask for the record whether that is taking a toll on the preparedness, and whether or not we might be better keeping the number of planes up, and not try to keep so many areas in the country.

Now, that is not a nice thing to say, because who wants to lose a unit, but I note in Albuquerque, NM, a very, very significant unit has been reduced in numbers of planes, and there is some concern as to whether that is the right way to handle the situation if, in fact, you are trying to save money. Is there not another way?

Are you one who can answer that, or should I direct that to somebody else?

AIR FORCE RESERVE

General McIntosh. I can give a general statement relative to the Air Force Reserve. We have tried to do some consolidation to ensure that the most cost-effective unit number of airplanes in that particular unit is at the right level.

As we do that, we have to exercise extreme caution around demographics. You need to put Reserve and Guard units where the people are, where they work and where they want to serve, and so those two things matched side by side will give you a complex equation that will give you the answer, Senator, and I do not have a simple answer.

Senator Domenici. Thank you very much, Mr. Chairman.

Senator Stevens. Thank you, Senator. Senator Bumpers.

Senator Bumpers. No questions, Mr. Chairman.

Senator Stevens. Gentlemen, I appreciate the fact you have given our staffs your wish list, and I want to point out that the President's request is almost $13 billion less than the total that was appropriated in 1996. We are going to have a very difficult time, if I understand my friend over here from New Mexico, as far as the budget is concerned in trying to come back to the level that we have in 1996.

REAL PROPERTY MAINTENANCE BACKLOG

Now, having said that, how important is the real property maintenance backlog, and what are your unfunded requirements for this year? Could you—and maybe you had better give the last figure for us, for the record, if you will, each of you.

What are your unfunded operation, real property operation and maintenance unfunded requirements, and the unfunded requirements for maintenance of equipment?

[The information follows:]

Navy

NATIONAL GUARD AND RESERVE EQUIPMENT APPROPRIATION

The Naval Reserve forces are tasked with many different air, sea and shore missions. While it is possible to assign priorities to equipment items within a mission area, it is not considered meaningful to assign relative priorities among mission program areas, or among the three major equipment categories.

Fiscal year 1997 unfunded new/replacement aircraft

[Dollars in millions]

Mission Program/Item (prioritized within program)	*Cost*
Logistics Aircraft: C–9 Replacement Aircraft (4 aircraft)	$160.0
Rotary Aircraft: SH–60B (5 aircraft)	131.0
Command and Control Aircraft E–2C (Plus) (4 Aircraft)	300.0
Total New Aircraft	591.0

Fiscal year 1997 unfunded major modification requirements

[Dollars in millions]

Mission Program/Item (prioritized within program)	*Cost*
Strike Aircraft Mods:	
F/A–18 Upgrade Program	$96.0
F–14 Upgrade Program	95.0
ALQ–126B	25.0
Surface/Littoral Support Mods: MIUW Van System Upgrades	102.0

Mission Program/Item (prioritized within program)	*Cost*
Maritime Patrol Improvements:	
P–3C:	
ISAR	18.0
Update III Kits (9)	56.0
Anti-Surface Warfare Improvement	40.0
Rotary Wing Aircraft Mods: HH–60H Refueling Upgrade	16.0
Logistics Aircraft Mods: C–9 Engine Upgrade	45.0
Total Major Mods	493.0

RESERVE PERSONNEL, NAVY APPROPRIATION

[Dollars in millions]

Item	*Cost*
Offset increased travel costs; additional ADT/IDTT funds to provide contributory support	$15.0
Special duty assignment pay for recruiters	.84
Total RPN	15.84

OPERATIONS AND MAINTENANCE, NAVAL RESERVE APPROPRIATION

[Dollars in millions]

Item	*Cost*
Aircraft Depot Maintenance. Airframes—reduces backlog from 32 to 37. Engines—reduces backlog from 150 to 144	$5.0
Real Property Maintenance. Maintains the current fiscal year 1996 critical backlog at $140 million	30.0
Base Operating Support. Provides funding for contract berthing (QOL issue), medical readiness (physicals) and unexpected base closing expenses	7.0
Recruiting. Restores funding for advertising/recruiting operations to fiscal year 1996 levels	3.0
Total O&M, NR	45.0

MILITARY CONSTRUCTION, NAVAL RESERVE APPROPRIATION

[Dollars in millions]

FYDP	Location/State	Project	Cost
1998	NAF Washington, MD	Replacement BEQ (P–034)	$4.64
1998	NSA New Orleans, LA	NAVRES Management School (P105)	3.65
NA	Various	Planning and Design	1.20
2002	NRC Stevens Point, WI	Purchase RESCEN (P–100)	1.20
NA	Various	Unspecified Minor Construction	.60
	Total MILCON		11.29

MARINE CORPS

As our facilities age, analyzing past and current Real Property Maintenance (RPM) backlogs to ensure facilities are adequately maintained is imperative. This analysis enhances fiscal planning. Additionally, the RPM backlog is used to brief key decision makers inside and outside the Marine Corps on what additional resources are required for the maintenance of facilities.

Currently, the real property maintenance backlog is $7 million. Of this amount, we could execute $2.1 million this year.

Our unfunded installation operation costs are $1.245 million. This figure contains unfunded installation costs for transportation activities, safety, maintenance of administrative vehicles, printing and reproduction. Other installation costs such as morale, welfare, and recreation are also included in this figure.

Our real property operations unfunded requirements for installations are $0.84 million. This represents unfunded custodial services, rental of real property, and engineering studies.

Finally, our unfunded maintenance of equipment requirement is $0.18 million. This funding would be used for garrison mobile equipment.

ARMY RESERVE PRIORITIES

Senator STEVENS. But what are your priorities as far as the shortfall is concerned in terms of this subject?

If we have money, our tendency is to put it into quality of life for Reserve components. What is that going to do as far as real property maintenance and your basic maintenance programs?

General BARATZ. Unfortunately, Senator, I have some things that are growing that I do not want to grow, and real property maintenance is one of them. My total bill today is almost $200 million. It is $199 million to be exact. I am growing at 20 percent a year.

It is a substantial problem for me as we have explained to your staffers. They, by the way, have done a thoroughly professional job with us for which we are deeply appreciative. We have told them that any relief we could get in real property maintenance would help us out. I could spend that money right now to get us out of the hole that we keep digging ourselves into.

Senator STEVENS. Admiral Hall.

Admiral HALL. Well, as I indicated before, we have really two areas. One is in our personnel account, and in order to fund increased travel cost overseas it is going to require about $15 million to $20 million more. If we do not have that, we will not support the CINC's as we need.

Within the area you asked about we have about $40 million to $45 million that we could spend productively, with real property maintenance being around $30 million and base operating support $7 million, and aircraft depot maintenance around $5 million, and those are ones which we think would arrest the backlog of critical maintenance, properly operate our bases where we want.

If we do not have that, we will just continue a steady decline. We provided those lists, but that pretty well summarizes that area for me.

Senator STEVENS. General Wilkerson.

General WILKERSON. Sir, we are working primarily to focus on balancing the maintenance of our tanks, our armored vehicles, our LAV's and AAV's, and continue the depot reparable level necessary to sustain them to be compatible with the Active Forces.

What we are concerned about is, we are moving toward a little bit of an imbalance in funding for aviation specific items and are not able to bring these others back up at the same time. We also have problems in relocations and facilities that I have told you about, and we have provided the list to your staff and they have been very receptive about how we are moving things.

So that is a very short shot, but that is how it is balancing out for us. We are focusing on the readiness that accrues from doing these things.

Senator STEVENS. General McIntosh.

General MCINTOSH. Mr. Chairman, we also are focusing on readiness. In terms of our unfunded list it is about $92 million, and real quickly, depot maintenance, $31 million to $32 million short, real property maintenance, we could use an additional $20 million as we have a backlog also of nearly $199 million there, and then we have a disconnect in our associate flying hour program of about $34 million. That is where our money would go if we receive it.

Senator STEVENS. OK, let me just do this. I would like to ask each of you to give us the status of the 1996 dedicated procurement funds that we provided and tell us what critical unfunded items of equipment you would procure if Congress does have additional funds to make available to Reserve forces for 1997, and I would make the same request again for the record for what you have just told us with regard to the real property maintenance. I want to specifically know what is the backlog, and how much could you really efficiently spend this year to try to reduce that backlog.

[The information follows:]

ARMY

Additions to budget request—Army Reserve equipment

	In millions
HEMTT bridge trans	$7.700
M916A1 (M917A1)	11.765
2½T cargo ESP	15.125
ROWPU 3K GPH	4.275
Floodlight set trl mnt with HMT trl, Gen 5KW TQG	6.384
Tractor, yard	1.742
SPBS–R/ULLS ground	1.738
HMMWV contact mnt trk	10.527
All-terrain forklift 10K	7.700
Hydraulic excavator	5.200
All-terrain crane 20 TN	6.250
Roller vibrator type I	3.250
HEMTT wrecker	6.785
MG grenade M40, MK 19	3.200
Steam cleaner	3.000
Small arms simulators	1.000
Laser leveling system	1.500
High mobility trailer	2.265
ANGRC–231 radio	6.750
HEMTT wrecker	7.599
Medical equip, misc	.550
PLS trailer	2.451
HEMTT cargo chassis	7.600
FMTV 2.5/5 ton truck	14.950
PLS trailer	2.537
HEMTT cargo chassis	7.600
CH–47D cargo (chinook)	49.500
Total	199.403

The Army Reserve's backlog of maintenance and repair at the beginning of fiscal year 1997 is estimated to be $199 million. Of that amount $132 million could be efficiently spent to reduce that backlog.

MARINE CORPS

The Marine Corps has received, and we are in the process of executing, the fiscal year 1996 dedicated procurement funds.

If Congress were to make available additional fiscal year 1997 funds to the reserve forces, we would procure the following important unfunded items of equipment:

[Dollars in millions]

Item	Qty	Unit cost	Total cost
AAV7A1 (PIP)	NA	NA	$2.192
LAV (PIP)	NA	NA	2.600

[Dollars in millions]

Item	Qty	Unit cost	Total cost
Modification Kits (M1A1 tank)	NA	NA	5.000
Night Vision Equipment	72	$.012	.864
Phoenix In-Bore Subcal Device	64	.005	.320
Common End User Computers	NA	NA	3.730
Forklifts, Commercial	27	.025	.675
Mechanical Test Measurement and Diagnostic Equipment	NA	NA	3.890
HAWK Mods	NA	NA	.819
AN/TPS–59 Mod	2	5.400	10.800
Joint Tactical Information Distribution System (JTIDS)	1	.583	.583
Automatic Test Equipment	12	.307	3.684
General Purpose Electronic Test Equipment (GPETE)	NA	NA	2.430
ELPA 302 antenna	15	.003	.045
International Standard Organization (ISO) Beds	400	.006	2.400
Shore Based Consolidated Allowance List (SHORECAL)	2	3.800	7.600
Individual Material Readiness List (IMRL)	NA	2.200	2.200
"Organizational" Level IMRL "Intermediate" Level	NA	3.500	3.500
AN/ALQ–126B	4	1.190	4.760
AN/AAS–38 FLIR	4	2.420	9.680
Pub/Engineer Upgrades	2	3.000	6.000
Aircraft Storage Bags	18	.024	.432
KC–130T Fly in support package (FISP)	[1] 1	20.000	20.000
AH–1W FISP	[1] 1	29.000	29.000
AH–1W Packup Kit	[1] 6	2.000	12.000
KC–130T Packup Kit	[1] 2	2.000	4.000
CH–53E Packup Kit	[1] 2	2.000	4.000
CH–53E	2	32.000	64.000
Total			228.000

[1] Sets.

NA. Not available.

NAVY

NATIONAL GUARD AND RESERVE EQUIPMENT APPROPRIATION

The Naval Reserve forces are tasked with many different air, sea and shore missions. While it is possible to assign priorities to equipment items within a mission area, it is not considered meaningful to assign relative priorities among mission program areas, or among the three major equipment categories.

Fiscal year 1997 unfunded new/replacement aircraft

[Dollars in millions]

Mission Program/Item (prioritized within program)	*Cost*
Logistics Aircraft: C–9 Replacement Aircraft (4 aircraft)	$160.0
Rotary Aircraft: SH–60B (5 aircraft)	131.0
Command and Control Aircraft E–2C (Plus) (4 Aircraft)	300.0
Total New Aircraft	591.0

Fiscal year 1997 unfunded major modification requirements

[Dollars in millions]

Mission Program/Item (prioritized within program)	*Cost*
Strike Aircraft Mods:	
F/A–18 Upgrade Program	$96.0
F–14 Upgrade Program	95.0
ALQ–126B	25.0
Surface/Littoral Support Mods: MIUW Van System Upgrades	102.0

Mission Program/Item (prioritized within program)	*Cost*
Maritime Patrol Improvements:	
P–3C:	
ISAR	18.0
Update III Kits (9)	56.0
Anti-Surface Warfare Improvement	40.0
Rotary Wing Aircraft Mods: HH–60H Refueling Upgrade	16.0
Logistics Aircraft Mods: C–9 Engine Upgrade	45.0
Total Major Mods	493.0

OPERATIONS AND MAINTENANCE, NAVAL RESERVE APPROPRIATION

[Dollars in millions]

Item	*Cost*
Real Property Maintenance. Maintains the current fiscal year 1996 critical backlog at $140 million	30.0

AIR FORCE RESERVES

PROCUREMENT/BACKLOG

The USD comptroller released $33.7 million fiscal year 1996 NGREA funds to the AFR in May 1996. Obligation of this money will begin immediately. Our fiscal year 1997 unfunded requirements list for procurement is attached. The following is the AFR fiscal year 1997 unfunded requirements for O&M.

[In thousands]

Depot Maintenance	$31,600
This funding shortfall was created by a unexcutable/carryover of $3 million in fiscal year 1996 combined with $28.6 million in fiscal year 1997. These shortfalls were created by Depot cost increases and internal Department of Defense funding decisions. Impact of not receiving this additional funding could result in 5 aircraft and 28 engines not meeting the necessary programmed depot maintenance (PDM) schedules.	
Associate Flying Hour	33,900
A unilateral shift by USTRANSCOM in the training reimbursement cost of associate unit flying hours has created this unfunded requirement. We project that it will grow to $50 to $60 million in the outyears. This is only one side of the reimbursement relationship between AMC and the Air Force Reserve. In the past, the reimbursement rate to AMC for the Air Force Reserve's training hours on associate aircraft and the AMC reimbursement rate to the Air Force Reserve for flying channel missions, was the same. This was a mutually beneficial situation, which involved the reimbursement for the basic cost of AVPOL. USTRANSCOM wishes to charge the Air Force Reserve a rate similar to the DBOF-T rate charged to airlift users (Army Navy, etc.) which includes the cost of aircrews, headquarters overhead, etc. At the same time they will not use the same rate in reimbursing the Air Force Reserve for channel traffic missions which generate DBOF-T revenue for AMC. The Air Force Reserve believes that the reimbursement rates should remain as they have been in the past and reflect a zero sum game.	
Real Property Maintenance Backlog	20,000
Our BMAR backlog will grow to over $199 million by the end of fiscal year 1997. We can execute an additional $20 million during fiscal year 1997.	
Recruiting Advertising	1,500
AFRES depends heavily on prior service personnel as a recruiting base. Due to the active duty downsizing, AFRES must dramatically increase recruitment of non-prior service enlistees to meet manning requirements. The shift to non-prior service recruiting requires an "early and often" approach to awareness and image formation to grab the attention of the 16 to 21 year old audience.	

Base Operating Support	5,000
Increase BOS from 96 percent funded to 100 percent funded for fiscal year 1997.	
Total Unfunded—O&M, AF	92,000

Senator STEVENS. Any further questions?

Senator BUMPERS. Mr. Chairman, just a couple of parochial questions.

FORT CHAFFEE

General Baratz, how are you making out at Fort Chaffee?

General BARATZ. I think the enclave is in good shape. General Thasher and myself have reached an amenable agreement. I think we are working inside the Army. I think we are going to be fine at Fort Chaffee.

Senator BUMPERS. How many acres did you wind up with? Does 6,000 ring a bell?

General BARATZ. The National Guard is the proponent for the Fort Chaffee Reserve enclave of 65,500 acres. The Army Reserve is a tenant on this enclave and the National Guard has made available to the Army Reserve sufficient space to meet our mission requirements.

Senator BUMPERS. General Wilkerson, I was just sitting here thinking, I do not know where the Marine Reserve trains. You have 40,000 men and women in the Reserves, is that correct?

General WILKERSON. Correct, sir.

Senator BUMPERS. Where do they do their summer training, or all the training they do?

General WILKERSON. Across the United States. In many of the instances, they are facilities that are part of joint operational areas that we go for training in the actives as well. We do training at Twenty-Nine Palms in the desert, we do training at Army facilities throughout the country where we do armored artillery support and the like.

JOINT EXERCISES

Senator BUMPERS. Do you do joint exercises with the Army?

General WILKERSON. Indeed, sir, and not only that, joint exercise—the focus of what we are doing, if you ask me where the Reserves are training, you could ask me where the Marine Corps is training, because the object in the exercise, in the total force is, our Reserve units are identified with actives in all the plans and presentations. They are moving more and more so you can see where the Marine Corps is going to train, in all of the ranges that are available to all of the services you will find our Reserves.

Perhaps the most recent example is the training we did in Norway, which was exercise Battle Griffin. We had 4,300 Marine Reserves over there. It was the point of a joint combined exercise. It was a normal cycle of events for the military. Not only do we get training out of that, but we also reduce PERSTEMPO and OPSTEMPO for our active folks in the process. That is the kind of thing you would see, sir.

Senator BUMPERS. Is there any proposal in the 1997 budget to reduce the Marine Reserves?

General WILKERSON. Not that I am aware of, sir.

Senator BUMPERS. You certainly hope not, then.

General WILKERSON. I was just going to say, let me get my heart back. [Laughter.]

Senator BUMPERS. I was just asking because I am curious.

General WILKERSON. No, sir; not at all. Do you mean the end strength of the Reserve?

END STRENGTH

Senator BUMPERS. End strength.

General WILKERSON. No, sir; we are set at 42,000, as near as I can see in the individual ready reserve, and all the other components remain the same.

Senator BUMPERS. Do you have any difficulty maintaining that strength?

General WILKERSON. We are in the process now—as you will remember back very quickly, when we had gone through the initial reductions, both active and reserve, there had been at one time a thought that the Marine Reserve would dip down into the high thirties when it was settled at 42,000. We have moved back toward it. We will make our end strength this year at 42,000 and be prepared to move as necessary.

Senator BUMPERS. How many of those Reserves are former marines?

General WILKERSON. We are working about half-way; 50 percent of our folks are prior service. That goes up and down, depending upon specialty skills, but right about now it is about one-half.

Senator BUMPERS. Thank you, Mr. Chairman.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. Thank you very much. Gentlemen, we appreciate very much your being here. We will do our best to deal with your wish list, and we understand the increased participation of the Reserve and Guard in our total force and will act accordingly to the best of our ability. Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Reserves for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO MAJ. GEN. MAX BARATZ

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

ARMY RESERVE ISSUES

Question. What are the major differences between the AGR and civilian technician programs?

Answer. Army Reserve military technicians are civil service employees in the competitive service appointed under Title 5, United States Code, to assist in the administration and training of the Army Reserve and the maintenance and repair of supplies issued to the Army Reserve. Army Reserve military technicians are required, as a condition of their civilian employment, to be a member of the unit that they are hired to support. An AGR is a Reservist ordered to active duty under section 12301(d) of Title 10, United States Code, in connection with the organizing, administering, recruiting, instructing or training the Reserve Components.

Question. What are the differences in deployability between an AGR and a civilian technician?

Answer. Military technicians are deployed in their military, not their civilian position. Military technicians, like their AGR counterparts, mobilize with the unit to which they are assigned. Both military technicians and AGR personnel are equally deployable as part of their units.

Question. Does having two separate personnel systems (AGR and civilian technician) for units to administer cause confusion?

Answer. No. The separate personnel systems have existed for many years and appear to be operating smoothly and efficiently. The personnel administration for Army Reserve military technicians has been recently consolidated at Ft. McCoy, Wisconsin. This consolidation has achieved a cost effective one stop shopping center for Army Reserve military technicians, meeting their personnel needs, and maintaining their personnel records.

Question. What roles do AGR's and civilian technicians perform in the Guard and Reserve? Has this changed since the AGR program was created?

Answer. The role of AGR's consists of organizing, administering, recruiting, instructing, or training the reserve components. The role of the Army Reserve technician is in the administration and training of the Army Reserve and the maintenance and repair of supplies and equipment issued to the Army Reserve. The duties of USAR AGR personnel are not to duplicate the day-to-day administrative and logistical functions of Army Reserve military technicians; their primary objective remains readiness through training and mobilization/deployment preparedness. Prior to the AGR Program, there existed a number of Recruiting Technicians (430 at end of fiscal year 1978) who had the full-time job of recruiting new members for the USAR. Basically, however, the role of the Army Reserve military technician workforce has not changed significantly since the advent of the AGR program.

Questions Submitted by Senator Pete V. Domenici

ARMY RESERVE ISSUES

Question. How many combat support units could deploy in 30 days?

Answer. Without regard to any specific operational plan, approximately 148 Army Reserve combat support units could deploy within a 30-day window in accordance with current readiness guidelines.

Question. If there is a decision to re-orient the missions of the Army Reserve and Guard units and/or to downsize the Guard and Reserves, what type of units are most likely to be affected? Where are these units located? What would the schedule be?

Answer. Almost any of the Army Reserve's warfight-supporting combat support and combat service support units could be affected by any future adjustment in the force. Additionally, the impact of such an adjustment in the force could again be felt across the entire United States. In the event that yet another force adjustment is directed, fiscal year 1998 is the earliest time it could occur. Additionally, any out of cycle adjustments would be affected by the Army's upcoming Total Army Analysis 05 force structure process. As in previous force structure reviews, factors such as a unit's ability to maintain assigned strength levels or its personnel readiness or whether it occupies government-owned facilities should be among the criteria used for decisions affecting specific Army Reserve units.

Questions Submitted to Rear Adm. Thomas F. Hall

Questions Submitted by Senator Christopher S. Bond

C–9 AIRCRAFT

Question. Admiral, what would the number one priority of the Naval Reserve be if funds were made available for new aircraft?

Answer. For new aircraft replacement, I consider replacement of the C–9 aircraft to be the number one priority for the Naval Reserve.

Question. Admiral, to follow that up, just how old are these C–9 aircraft and would it be more costly to spend money on refurbishing these aircraft or purchasing new ones?

Answer. The average age of the C–9 aircraft is over 21 years, with the oldest being 28 years. While the airframes may still have an expected lifespan of 38 years, the avionics will become obsolete in fiscal year 1998, and the engines in fiscal year 2000. In my opinion, it is more cost effective to purchase new aircraft. The cost to upgrade existing aircraft to meet new standards is approximately $9 million per aircraft. This represents about 25 percent of the cost of a new aircraft which would meet all future requirements, and provide 40 years vice 10 years of service life.

Question. What would you choose to replace these C–9's with?

Answer. Replacement aircraft must carry 90–100 passengers, have a cargo door, and meet all Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO) avionics suite requirements for over-water navigation. Several commercial off the shelf (COTS) aircraft will meet the requirements for C–9 replacement and are available with minimum non-recurring engineering costs.

Question. With the downsizing of our force, has there been impact upon the C–9's mission requirement and can the current fleet handle the job?

Answer. The C–9 is not an adequate aircraft to meet current fleet needs. Requests for Fleet support airlifts have not declined. Since 1992 fleet flight hours have averaged 41,000 hours per year. The regret rate for airlift requests has actually increased. This is due in part to decreased availability of our aging aircraft for unplanned maintenance combined with a high level of fleet operational requirements around the world. The closure of island airfields, bilateral military agreement limitations, geo-political changes, and changes to our operational taskings currently challenge the C–9's capability for increased range, over-water flights. Based upon current planning guidance, 27 contemporary, extended range aircraft would meet known requirements.

QUESTIONS SUBMITTED TO MAJ. GEN. ROBERT A. MCINTOSH

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

AGR AND CIVILIAN TECHNICIAN PROGRAMS

Question. What are the major differences between the AGR and civilian technician programs?

Answer. The Air Force Reserve AGR program consists of statutory tour positions authorized under 10 U.S.C. 10211, 10305 and 12310 which are primarily located at headquarters. The statutory tour officers advise and assist in developing and implementing Air Force policies, procedures and programs; facilitate the integration and effective utilization of reserve forces into active duty missions; and maintain cooperation and communication between the active force and the Air Force Reserve. These positions are assigned to active duty organizations (OSD, JCS, SAF, the Air Staff and the Joint and Major Commands.) As active duty members, they are subject to the same policies and rules as the active force members, except, they do not count against the active force end strengths and are under the Reserve promotion system.

Air Reserve Technicians (ART's), who are primarily located at the reserve units, are federal civilian employees who are required, as a condition of employment, to be members (i.e., drilling members) of the reserve unit in which they are employed as civilians. There are more than 100 different occupations represented by ART's throughout the Air Force Reserve unit program. They are subject to the same policies and rules as are the traditional reservist.

These two categories of full-time support are distinctly different and provide a clear division of labor and management for the Air Force Reserve. While the AGR's provide assistance at the headquarters level, the typical level of assignment of ART's is at the unit level. There is also a difference in the manner they can be deployed. The AGR's are on active duty for given tour lengths and are subject to receiving orders for deployment as any other active duty member. ART's are civilians with Selected Reserve status who may volunteer to be deployed. An ART, like the traditional reservist, may not be involuntarily ordered to active duty unless a mobilization authority has been ordered by the President or Congress.

Question. What are the differences in deployability between an AGR and a civilian technician?

Answer. AGR's are reservists serving on active duty for given tour lengths and are subject to receiving orders for deployment as any other active duty member.

ART's are civilians with Selected Reserve status who may volunteer to be deployed. An ART, like the traditional reservist, may not be involuntarily ordered to active duty unless a mobilization authority has been ordered by the President or Congress.

A major difference between the AGR and ART who is ordered to active duty is the medical entitlements. Since the AGR is on active duty they receive the same entitlements as any active duty member of the service. However, unless the ART is on orders for more than 31 days, they do not receive the same medical entitlements as their active duty counterparts, even though they are performing the same duty. H.R. 3230 provides relief from this disparity for the member and we are hoping for additional coverage for the dependents of these reservists in next year's legislation.

Question. Does having two separate personnel systems (AGR and civilian technician) for units to administer cause confusion?

Answer. There is a clear division between these two programs. The Air Force Reserve AGR program consists of statutory tour positions primarily located at headquarters. These positions are assigned to active duty organizations (OSD, JCS, SAF, the Air Staff and the Joint and Major Commands) and are managed by the Deputy to the Chief of Air Force Reserve. The day-to-day administration of the AGR program is the Director of Personnel for the Chief of Air Force Reserve.

The management of Air Reserve Technicians, who are primarily located at the reserve units, must take into consideration their dual-status (civilian and military) employment conditions. The expertise for this management is located at HQ AFRES. This total AFRES force management enhances integration of the member's civilian and military careers and is critical to the overall operational readiness and mission accomplishment of AFRES. Because of the difference in responsibilities and location of assignments, there is minimal confusion for the Air Force Reserve.

Question. What roles do AGR's and civilian technicians perform in the Reserve? Has this changed since the AGR program was created?

Answer. The Air Force Reserve AGR program consists of statutory tour positions authorized under 10 U.S.C. 10211, 10305 and 12310, who are primarily located at headquarters. The statutory tour officers advise and assist in developing and implementing Air Force policies, procedures and programs; facilitate the integration and effective utilization of Reserve forces into active duty missions at the active duty organizations (OSD, JCS, SAF, the Air Staff and the Joint and Major Commands.) They maintain cooperation and communication between the active force and the Air Force Reserve. The statutory tour officers and airmen authorized under 10 U.S.C. 12310 perform duties in connection with organizing, administering, recruiting, instructing or training reserve components.

Air Reserve Technicians (ART's), who are primarily located at the Reserve units, are the backbone of the Air Force Reserve. They are highly-skilled, full-time employees that span the spectrum from commanders to aircraft mechanics. A number of commissioned officers serve as pilots, nurses, aircraft maintenance officers, civil engineers and a host of other positions. Moreover, many ART positions are in the enlisted ranks. The critical field of aircraft maintenance alone employs more than 70 percent of the ART work force. All told, more than 100 different occupations are represented by ART's, including the fields of training and education; safety; disaster preparedness; intelligence; public affairs; security police; supply; transportation; logistics; meteorological; military personnel; and aircrew operations.

The roles of the AGR and technician have not changed since the inception of both programs as it provides a clear division of labor and management.

NATIONAL GUARD BUREAU

STATEMENT OF LT. GEN. EDWARD D. BACA, CHIEF, NATIONAL GUARD BUREAU, DEPARTMENT OF THE ARMY

ACCOMPANIED BY:

MAJ. GEN. WILLIAM A. NAVAS, JR., DIRECTOR, ARMY NATIONAL GUARD, DEPARTMENT OF THE ARMY

MAJ. GEN. DONALD W. SHEPPERD, DIRECTOR, AIR NATIONAL GUARD, DEPARTMENT OF THE AIR FORCE

PREPARED STATEMENTS

Senator STEVENS. We are now going to hear from the leaders of the National Guard, Lt. Gen. Ed Baca, Chief of the National Guard Bureau, Maj. Gen. William Navas, Director of the Army National Guard, and Maj. Gen. Don Shepperd, the Director of the Air National Guard.

Gentlemen, your statements will all be made a part of the record. We would like to have you proceed to make such statements as you would in introduction to your areas.

[The statements follow:]

PREPARED STATEMENT OF LT. GEN. EDWARD D. BACA

THE NATIONAL GUARD HERITAGE

The heritage of the National Guard of the United States predates by well over one hundred years, the founding of our nation, and the formal establishment of our nation's military. Today, in our 360th year, we are once again challenged, as were our nation's founders, with the responsibility of crafting an appropriate combination of military forces at an affordable cost to meet a new and uncertain national security environment.

The role of the organized militia, what we now call the National Guard, is not a new issue. During the Constitutional Convention of 1787 the role of the militia was one of the most vigorously debated topics. A key issue during this debate was reliance on the state militias for the federal defense as an alternative to maintaining a large standing military. Over two hundred years of proud and steadfast service to their nation by those same state militias have validated the wisdom of those visionary statesmen. Today the National Guard remains a full partner and team player in the National Security Strategy, and should continue to be considered an efficient and effective solution to America's future national defense needs.

The concept that all Americans have both the privilege, and the opportunity, to bear arms for the common defense of their community and their nation continues to be the core value of the National Guard today, just as it was over three centuries ago. This citizen-soldier ethos is reflected in the spirit and dedication of the nearly 500,000 men and women who serve in today's Army and Air National Guard. These patriots serve their communities and nation from nearly 2,700 hometowns across America, operating nearly 3,500 installations to sustain and maintain the Guard's readiness throughout the 50 states, Puerto Rico, Guam, the Virgin Islands, and the District of Columbia.

THE NATIONAL GUARD ROLE IN NATIONAL DEFENSE

The Department of Defense total force concept, initiated by Secretary of Defense Melvin Laird and subsequently decreed a Total Force Policy by Secretary of Defense James R. Schlesinger, observed its 25th anniversary this past year. The basic premise of the concept, that the Selected Reserves should be maintained "as a force in being, able to deploy rapidly and to operate side-by-side with active units," emerged from the conclusion that increasing reliance on National Guard and Reserve forces was fundamental to a cost effective military force structure. Under today's austere economic conditions, as we face the challenges of designing a military force to meet the diverse threats of a dynamic security environment, this same conclusion remains most appropriate. Adept implementation of this Department of Defense policy has provided the American people with a National Guard capable of both supporting the national security strategy and meeting the challenges of domestic emergencies and natural disasters. As successful as the Total Force Policy has proven to be, we cannot rest on past accomplishments, but must continue to strengthen intraservice teamwork and evolve joint service applications. The American people are the true beneficiaries of the National Guard's contribution to the integrated total force environment of today's national defense team.

General Creighton Abrams, hero of three wars, Army Chief of Staff and strategic visionary, could not have foreseen clearly the impact his championing of a total force concept would have on world events. In reaction to the bitter lessons of the Vietnam conflict, General Abrams crafted a plan to integrate the total Army so that never again could America's Army be sent to war without its reserve components. The heroic contributions of National Guard men and women from across the nation in Operation Desert Storm demonstrated to the world the success of the Total Force Policy. This mobilization, which resulted in the swiftest, most one-sided victory in modern war, gave authoritative testimony to General Abram's vision and substance to the phrase, "When you bring the Guard, you bring America." Today, thanks to the stewardship of dedicated patriots; civilian, military, active and National Guard alike; your National Guard has achieved unprecedented levels of readiness and accessibility to support the National Security Strategy around the globe.

The National Guard continues to be a key force provider in the execution of the President's National Security Strategy. The Chairman of the Joint Chiefs of Staff relies on our forces daily to augment execution of the National Military Strategy. The Combatant Commanders employ our forces world-wide in virtually every operation they undertake.

For the first time ever, the U.S. Central Command deployed nearly 400 Army National Guardsmen in a tri-component combat task organization to accomplish the Multinational Force and Observers mission in Egypt's Sinai Desert. National Guard soldiers comprised 72 percent of the 82nd Airborne Division Task Force, and held 45 percent of the organization's key leadership positions. This deployment was an outstanding success for the total Army.

The U.S. Atlantic Command mission in Haiti, Operation Uphold Democracy, employed Army National Guard soldiers both on the ground in Haiti and in support of the 10th Mountain Division's deployment. The U.S. Special Operations Command included our soldiers as an integral part of its rotational support to this peacekeeping operation.

Air National Guard support to the U.S. European Command in Operations Provide Comfort and Deny Flight have been crucial to achieving operational objectives. National Guard engineer, medical, security and counterdrug support to the U.S. Southern Command continues to be an integral part of national policy implementation in Central and South America. As previously noted, National Guard forces provided through the Army and the Air Force to the Commanders-in-Chief have in the past and will continue in the future to play key roles in the enhancement of security around the world.

As a complement to the President's National Security Strategy objective of promoting democracy, the National Guard State Partnership Program was established to support the Partnership for Peace initiative. This past year, under the auspices of the U.S. European Command, our citizen soldiers and airmen provided expertise in military organization and training to the emerging democracies of Central and Eastern Europe. They demonstrated that the National Guard of the United States provides an excellent democratic model for building a community-based national defense force subject to civil authorities. In January of this year the National Guard, serving as the Department of Defense executive agent, in a cooperative effort with the White House and George Washington University, co-hosted the Marshall Legacy Symposium. This international event examined methods to broaden and deepen partnerships and to strengthen democracy. Special attention to the community-based context of bilateral, democratic civil-military ties, as exemplified by our State Partnership Program was integral to these discussions.

As the success of the Marshall Legacy Symposium demonstrates, National Guard participation in this process reaches well beyond military matters in building long term institutional nation-to-nation relationships. Your National Guard provides the bridge linking our democratization efforts abroad with grassroots America.

The Constitutionally established dual role of the National Guard in service to both state and federal authorities is yet another example of the enduring vision of our nation's founders. The National Guard's ability to provide for national defense against a military threat, while concurrently providing the American people with a hometown resource capable of saving lives and protecting property in emergencies, is an absolute national treasure.

Emergency support to the governors of our states and territories exceeded record levels this past year. The National Guard in 46 states and territories responded to nearly 500 emergencies and military assistance missions to local civil authorities. One of the most significant of these emergencies was the bombing of the Murrah Federal Building in Oklahoma City, to which nearly 800 Oklahoma National Guard men and women responded. Mother Nature again challenged our stamina and skills in another extremely demanding year. Hurricanes buffeted the Virgin Islands, Puerto Rico, Alabama, and Florida. Flood waters in Missouri and California caused property losses in the hundreds of millions of dollars. Loss of life was minimal, due in part to the swift and skillful response of our soldiers and airman who left their own families to assist their neighbors in time of need.

Your National Guard is the grass roots defense link with America. These citizen soldiers and airmen have a proud record of service to their nation and their states, and can be depended upon to respond whenever and wherever they are needed. In this era of strategic uncertainty and budgetary restraint America's National Guard can truly be considered "a whole life insurance policy at term cost."

POSTURING THE FORCE FOR THE 21ST CENTURY

As we reconfigure the total force to meet the changing strategic environment, future force design will offer significant challenges to all of us in the coming year. The National Guard will be both an active participant in this process and a significant resource in the final solution. While the 1993 Bottom Up Review reduced the size of the National Guard, it did not result in a hollow force. In terms of numbers, our overall capability has been reduced, but not our readiness, or willingness to perform our federal and state missions. It is extremely important to our soldiers and airmen to have an objective end state which will provide a stable target for future force development and a planning continuum.

The Air National Guard was programmed in fiscal year 1996 to reduce general purpose fighters from 15 to 12 primary aircraft authorized [PAA] per unit, and remission five air defense units to general purpose forces. These reductions were suspended as a result of our receipt of additional Congressionally directed funding. Future budgets could continue to require tough force structure decisions. Our goal is to maintain our community presence, in addition to our cost effective national defense capability.

The Air National Guard is in the process of transitioning into new missions. These new missions include B–1 Bombers based at McConnel Air Force Base, KS, and Warner-Robins Air Force Base, GA; a Mobile Ground Science Space mission at Greeley, CO; a reimbursable National Science Foundation mission in Antarctica; and a tactical manned reconnaisssance capability at Richmond, VA. By the end of this fiscal year, the Air National Guard will have peacetime control of Air Combat Command's 1st Air Force, including the subordinate Regional and Sector Operation Control Centers. This precedent setting initiative marks the first time the Air National Guard has commanded a numbered Air Force.

The Army Active Component/Reserve Component "Offsite" process continues to provide a forum for our senior leadership and association representatives to discuss major issues. We are continuing the process of executing the details of the 1993 agreement which established the Army National Guard force structure allowance at 405,000 and a programmed end strength of 367,000 by the end of fiscal year 1999. This agreement provides a stable end strength foundation upon which we can shape a force structure for the 21st century.

CAPITALIZING THE TALENTS OF OUR PEOPLE

As in any world-class organization, the success of the National Guard is a product of our quality people. The talent of this most cherished resource will lead our nation to a prosperous and safe future. The demonstrated dedication and skill of our soldiers and airmen have earned the National Guard a tremendous level of trust from the American people, as have all the military services. Maintaining and improving this trust with America is what the National Guard is all about. The people who make this happen are our most important resource.

Recruiting and retaining the best and brightest young Americans pose our greatest challenges. Although the available recruiting population remains adequate, uncertainty regarding future military reductions, combined with a perceived loss of a major international threat, has produced a cautious and conservative recruiting environment. The National Guard Bureau is working with each of our states and territories to develop initiatives to ensure the National Guard reaches its strength goals. Extensive use of enlistment incentives, radiating from the highly visible benefits of the Montgomery GI Bill, continue to be major motivators for our six-year enlistments.

The high state of organizational readiness currently found in both the Army and Air National Guard is directly related to the efforts of our full-time support personnel. These soldiers and airmen perform the bulk of the day-to-day operations required to maintain our equipment and facilities and to administer our training. Military technicians and Active Guard/Reserve [AGR] personnel are truly the life blood of our organizations, renowned for their contribution to mission readiness. As the post Cold War downsizing continues, proportional full-time support reductions are programmed consistent with force structure reductions.

The National Guard has used a phrase for the past several years that states very simply what the organization really means to this nation: The National Guard "Adds Value to America." The training which prepares our soldiers and airman to defend our nation and respond to state emergencies not only makes them better citizens, but affords them an opportunity to use their experiences to enhance the quality of life of their friends and neighbors. National Guard sponsored programs have been developed by our states and territories over the past several years to capitalize on the talent and capability of our people to make their communities better places to live and work. The National Guard is not only a professional military, but a military of professionals.

The Youth ChalleNGe program is designed to enable high school dropouts the opportunity to become productive citizens by developing life and job skills, taking part in community service projects, and attaining a General Equivalency Diploma [GED]. Conducted in 15 states, it has provided a GED diploma to nearly 75 percent of the students completing the program. Approximately 6,500 young Americans have graduated since the program's inception with 96 percent either enrolled in college, high school or a job training course, serving in the military, or employed in the work force.

The Science and Technology Academies Reinforcing Basic Aviation and Space Exploration [STARBASE] program is an enrichment program which exposes grade and high school age youth to real world applications of math and science through hands-on learning, simulations and experiments. This program is currently conducted in 13 states and Puerto Rico. These two community-based youth programs were recently given an 18 month extension to the original three year pilot test period which extends its important contribution to community enrichment through 1997.

Additional grass roots community support in the form of Medical Innovative Readiness Training [MIRT] has received support from the Congress and the Department of Defense. Examples of these initiatives are the Army National Guard's MIRT program, and the Air National Guard's CareForce program.

All of these programs capitalize on the experience and training of National Guard men and women, on National Guard facilities and equipment located across the nation and, most importantly, on our tradition and values as a community-based defense force. As role models within their community, National Guard men and women have had a positive impact on the youth of America.

Another dimension of the National Guard's ability to add value to America is its involvement in our nation's efforts to interdict and stop the use of illicit drugs. A recent Gallup survey indicates many Americans view illegal drug use as the greatest threat to America. Our program focuses on three major areas: support to law enforcement efforts to interdict the flow of drugs; personnel and equipment support to domestic law enforcement counterdrug operations; and drug demand reduction through increased education and community service.

Our soldiers and airmen participated in over 7,000 counterdrug operations this past year, assisting in the seizure of more than 150,000 pounds of cocaine, 1,600 pounds of heroin, and over 821,000 pounds of processed marijuana. National Guard support resulted in the seizure of over 8,500 automobiles, nearly 20,000 weapons, and $293 million in cash, and over 100,000 arrests. Here is a program which truly pays for itself. Many of our state and local civilian law enforcement agencies now consider National Guard support to be indispensable to their counterdrug efforts. This is but another excellent example of the National Guard providing a cost effective investment to our citizens, to our communities, and to our nation.

Emphasis on our people extends beyond individual members of our Army and Air National Guard units. When a young American joins the National Guard team, his or her family become team members as well, with all the loyalty and care which go along with it. Our Family Partnership Program has the most extensive network and infrastructure within the Department of Defense. Our program has been developed, tested, and improved as a result of numerous state activations for natural disasters and emergencies, as well as federal mobilizations, such as the most recent Operation Joint Endeavor.

Integral to our priority of people first, the National Guard goal to guarantee each soldier, airman, and civilian an equal opportunity for entry and advancement in the National Guard includes a work environment free from discrimination, cultural bias, and sexual harassment. Today, minorities comprise 25 percent of the Army National Guard and 18 percent of the Air National Guard. Women, included in these figures, comprise 8.2 percent of the Army National Guard and 14.3 percent of the Air National Guard. These statistics show a steady expansion of our diversity to reflect the cultural values and norms of the communities from which we draw our soldiers and airmen.

The strength and success of the National Guard today, and most assuredly tomorrow, is dependent on a single component—its people. These patriotic young men and women possess the courage and talent to sustain the National Guard as the premier community-based defense force, adding value to America and advancing the cause of freedom worldwide.

LEVERAGING TECHNOLOGY

The National Guard stands poised at the gateway of the Information Age. As we reshape and redefine our Industrial Age forces for the challenges of the 21st century, we must maintain the flexibility to take advantage of technological opportunities as they develop ever more rapidly. Enabling technologies of the future will not only significantly improve our ability to execute traditional combat missions, but will provide as yet unforeseen opportunities for new types of missions. Our challenge today is to best position the National Guard to recognize and embrace these opportunities.

The Reserve Component Automation System [RCAS] is one of the most extensive information management systems ever designed for the Department of Defense. This automated system will support the information and decision making needs of all commanders, staffs and functional managers responsible for Army Reserve Component forces through a personal computer network linked to every armory and reserve center in our nation. During the past year the program has been restructured to improve user support, reduce overall costs, and leverage new information management technology. This restructuring initiative is a real success story involving a cooperative effort between all Army components, the primary contractor, and Congress.

The National Guard provides the ideal environment in which to exploit the potential of the distance learning technology. Army and Air National Guard training and education initiatives, combined with the potential capabilities of the RCAS program, will position the National Guard to lead the way into the Information Age. Distance learning will empower our soldiers and airmen to overcome many of the current constraints imposed by limited training time and geographic dispersion. Community-based simulation and learning centers will provide the focal point for professional development and military skills training. Army and Air National Guard units, already linked today with video teleconferencing capabilities, are actively engaged with their respective parent Service to advance the potential of these emerging technologies.

Modernization of our forces takes advantage of our nation's technological strength. As we transition to a smaller force, modernization is critical to our future ability to provide the nation, our states and territories the operational capabilities they have grown to depend on. It is paramount that the Army and Air National Guard be included in the Army and Air Force programs to improve systems capabilities, soldier and airman survivability, and safety. As America's wellspring of national military resolve, the National Guard must continue to be included as a major resource in the total force spectrum of warfighting requirements.

Future requirements to meet the expanding dynamics of the international security environment, combined with declining Department of Defense budgets, will force the National Guard to find innovative ways to maintain our mission readiness. We will have to closely manage all of our resources to maximize efficiencies in every aspect of our operation. The National Guard is emphasizing financial stewardship at every level and aggressively seeks to optimize the use of scarce resources by fundamentally changing operating practices. Some like to say we need to do more with less, perhaps the more appropriate commentary is that we need to be more effective with what we have.

The Army National Guard is actively participating in the total Army Force XXI Initiative, and is an integral player in several functional reengineering efforts. One of the most notable of these is the role our Army National Guard logistics community is playing in leveraging our tremendous nationwide infrastructure base. The Army has integrated this capability into a worldwide resource.

The Air Force has crafted a seamless interface with its reserve component elements, earning Department of Defense recognition as a model for total force integration. The Air National Guard continues to be a full partner in the Air Force's programming and decision making process. Working in tandem, the Air Force and Air National Guard continue to maintain a mission capable fighting force with community presence across America.

The National Guard is a proud member of America's total force team. We are trained and ready today. As a result of the foresight of our predecessors, we have the highest quality soldiers and airmen equipped with the most advanced systems in the world. The standard has been passed to us to polish and improve. We stand ready as a key ingredient in the solution to the uncertainties of the 21st century.

BIOGRAPHICAL SKETCH OF LT. GEN. EDWARD D. BACA

Lieutenant General Edward D. Baca is the Chief, National Guard Bureau, Washington, D.C. As Chief, he serves as the senior uniformed National Guard officer responsible for formulating, developing, and coordinating all policies, programs and plans affecting over half a million Army and Air National Guard personnel. Appointed by the President of the United States, General Baca serves as the principal advisor to the Secretary and Chief of Staff of the Army and the Secretary and Chief of Staff of the Air Force on all National Guard issues.

General Baca was born on July 27, 1938, in Santa Fe, New Mexico. He is a graduate of Saint Michael's High School in Santa Fe, New Mexico and State University of New York at Albany, with a bachelor of science degree in Liberal Arts. He received an honorary Doctorate of Laws from New Mexico State University. His military education includes the Ordnance Basic Course, the Ordnance Officer Advanced Course and the Command and General Staff Officer Course.

General Baca began his military career on November 19, 1956 with his enlistment in Battery C, 726th Anti-Aircraft Artillery Battalion, New Mexico Army National Guard. He served in numerous enlisted assignments, ranging from Anti-Aircraft Gunner to Supply Sergeant. Upon graduation from Officer Candidate School on July 20, 1962, General Baca was appointed as a Second Lieutenant and assigned as Platoon Leader, 3631st Maintenance Company. With the onset of the Vietnam conflict, General Baca volunteered for active duty and overseas deployment. Upon his release from active duty on February 11, 1966, General Baca returned to the New Mexico National Guard. During the next several years, he served in a wide range of key battalion, brigade, and state level assignments.

General Baca was appointed Adjutant General of the New Mexico National Guard on January 4, 1983. Under his leadership, the Army and Air National Guard of New Mexico successfully completed several complex modernization programs. These developments included the activation of the Army's only Roland Air Defense Artillery missile battalion and fielding of the first Chaparral and Hawk missile battalions in the Reserve Components. During General Baca's tenure as Adjutant General, New Mexico's Air National Guard completed a transition from the A–7 to the F–16. General Baca pioneered several innovative National Guard counterdrug programs, earning the first presentation of the Secretary of Defense Outstanding Demand Reduction Program Award. He also led the development of nationally-acclaimed community programs. On October 1, 1994, General Baca was promoted to Lieutenant General and assigned as Chief, National Guard Bureau.

General Baca's numerous awards and decorations include the Army Distinguished Service Medal, the Legion of Merit, the Meritorious Service Medal, the Army Commendation Medal, the Army Reserve Component Achievement Medal with Silver Oak Leaf Cluster, the National Defense Service Medal with one Bronze Service Star, the Vietnam Service Medal, the Armed Forces Reserve Medal with two Hourglass Devices, the Army Service Ribbon, and the Republic of Vietnam Cross of Gallantry with Palm Unit Citation.

The General is a member of the New Mexico National Guard Officer's Association, National Guard Association of the United States, Veteran's of Foreign Wars, and a Honorary Member of the Military Order of the Purple Heart.

General Baca is married to the former Rita Hennigan of Munster, Texas. They have seven children: Brian, Brenda, Karen, Mark, Michelle, David and Daniel.

PREPARED STATEMENT OF MAJ. GEN. WILLIAM A. NAVAS, JR.

Mr. Chairman and Members of the Committee: Thank you for the opportunity to appear before this committee today.

This has been a year of continued change for the Army Nation Guard. We are in our 6th year of force structure and personnel reductions. When end state is reached in 1998, we will have reduced the Army Guard's combat maneuver battalions by one-third—from 184 to 126. Our 1998 force will include Force Support Package (FSP) units, Echelons Above Division (EAD) Field Artillery, fifteen early deploying "enhanced readiness" combat brigades, two special forces groups, and a strategic reserve force of eight combat divisions, two separate brigades, and one scout group.

The Army National Guard's citizen soldier volunteers continue deploying overseas for real-world missions, supporting peacetime operations at home and abroad, as well as, forging new international relationships as part of the Guard's State Partnership Program of support to emerging democracies in Eastern and Western Europe. Proposed new partnerships in Central and South America widen the horizons of this highly successful "Bridge to America."

Last year, more than 23,000 Army Guard soldiers participated in overseas training and operational missions. During one of those missions, more than 400 Army Guard volunteers from 24 states served as part of the 82nd Airborne Division's battalion task force in the Sinai. Currently, more than 980 Army Guard personnel from 27 units in 19 states are serving as part of Operation Joint Endeavor, the NATO mission in Bosnia. Of the 954 soldiers called to duty over the Christmas Holidays, 945 (or 99 percent) were deployable, an indicator of our readiness capability.

During this past year, our soldiers answered the call for domestic missions as well, responding to a record 460 state emergencies in 46 states and providing military assistance for local civil authority missions. More than 4,800 soldiers from America's community-based military force responded to the bombing in Oklahoma City in April; other soldiers provided support in the aftermath of Hurricane Marilyn in the Virgin Islands and Puerto Rico in September, while others supported the victims of Hurricane Erin in Alabama and Florida in August. Our presence in the communities of this country clearly adds value to America and to the quality of life of our fellow Americans.

These major accomplishments and contributions underscore the Guard's capability to respond with trained and ready citizen-soldier volunteers and the inherent flexibility to accomplish a wide variety of missions. As we enter the 21st Century, we strive to preserve the fundamental strengths of the National Guard—its people and their unique ties to our states and communities. We continue to focus on improving our readiness by minimizing personnel turbulence, maintaining full-time support and ensuring our soldiers have the resources to effectively accomplish whatever our nation and states ask of us. Our soldiers and their families remain steadfast in their resolve to not only serve, but to serve with distinction, our Army and our Nation.

Mr. Chairman, members of the committee, I stand ready to answer your questions.

BIOGRAPHICAL SKETCH OF MAJ. GEN. WILLIAM A. NAVAS, JR.

Major General William A. Navas, Jr. is the Director, Army National Guard, National Guard Bureau, Washington, DC. As Director, he formulates, develops, and coordinates all programs, policies and plans affecting the Army National Guard and its more than 402,000 citizen soldiers.

Prior to this assignment, General Navas served since 1987 in a variety of senior level positions in the Department of Defense, as the Deputy Director Army National Guard, Vice Chief of the National Guard Bureau where he pinned on his second star, Military Executive of the Reserve Forces Policy Board and most recently as the Deputy Assistant Secretary of Defense/Chief of Staff for Reserve Affairs.

The general was born December 15, 1942, in Mayaguez, Puerto Rico, and was commissioned as a Regular Army officer in 1965 through Army ROTC from the University of Puerto Rico in Mayaguez. Lieutenant Navas first served with U.S. forces in the Federal Republic of Germany. He later commanded a Combat Engineer company in Vietnam. Captain Navas left active duty in 1970 and joined the Puerto Rico Army National Guard. Like many Guardsmen, General Navas has served in more than one branch. In the Guard he commanded Engineers again at the company level, and a battalion each of Military Police and Infantry. He has been an operations and training officer at battalion, brigade and State headquarters levels. General Navas, as a Colonel, commanded the first Engineer Training Exercise in Central America. His last State assignment before going to the National Guard Bureau was as Director of Plans, Operations, Training and Military Support, (G–3) Puerto Rico Army National Guard.

His decorations include the Defense Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit (two awards), Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal (two awards), Air Medal, and Army Commendation Medal (three awards).

In addition to an undergraduate degree in civil engineering, General Navas holds a Master of Science in Management Engineering from the University of Bridgeport, Connecticut. He has attended numerous military schools, including the Command and General Staff College, of which he is a Distinguished Graduate (1976), and the Inter-American Defense College.

General Navas is married to the former Wilda Cordova and resides at Fort Myer, Virginia. The couple has a son, William A. III, and a daughter, Gretchen.

Prepared Statement of Maj. Gen. Donald W. Shepperd

Mr. Chairman and members of the committee: Thank you for the opportunity to appear before this committee on behalf of the proud men and women of the Air National Guard. We ask this committee's support of our 1997 budget. Our budget reflects both national and military priorities. It is austere, but adequate to support training for our federal role—that of defending the United States in peace and war.

As I begin my third year as Director, the Air National Guard continues to be a full partner in the Total Force team. We provide well trained and equipped men and women to support the United States. We have the most modern forces in our history. We are taking on new federal missions and responding to current contingencies while maintaining our state role. We are able to meet today's challenges because we have ready, well trained, highly motivated men and women who are using technology to enhance our performance. We must continue to focus on our most important resource, our people. They stand ready to meet any future challenge.

As I testify before this committee Guard men and women are around the world, side by side with their Active duty counterparts performing real-world missions. Our life has changed. We used to stay home and train. We still do, but we have taken on new roles. In addition to homestation training, we deploy overseas for training. In the old days five overseas training deployments was a heavy year. This year we did twenty. In addition we take regular rotations to hot spots all over the world in support of our Active duty Air Force. We leave equipment in place and rotate our people. In the old days our Active Air Force was big enough to handle all but the largest of contingencies. Now, we are immediately called upon to supply major portions of our strategic airlift and tankers for even small contingencies. Our average aircrew participates 110–120 days per year with the Guard, our average support personnel 60–80.

Can we sustain this? Yes, but it won't be easy. The world has changed and so have we. We are part of an Air Force that trains, equips, uses and respects us. We have tight bonds with our parent Service. The Air Force sets the standards and inspects us, but allows us to manage our people and resources. We meet the same standards as Active duty units. We are part of all Air Force war plans. We are trained. We are ready. We are used—and in the future with tighter budgets we will be used even more.

As we look to the future, our ability to provide properly equipped Guard men and women to operational commanders and war-fighting CINC's relies on modernization. To this end we have designated fiscal year 1996 "The Year of Equipping" in the Air National Guard. Your Guard and Reserve Equipment Account support, along with Air Force equipment transfers, has helped us insure interoperability with modern Air Force systems. Our fiscal year 1997 focus is to continue to modernize aircraft and equipment to provide the greatest capabilities to our customers. Such efforts include improved self-defense systems, networked training devices, night vision enhancements, datalink capability, upgraded radars, portable Air Combat Measurement Instrumentation (ACMI) units, and precision guided weapons.

With our Air Guard airlift fleet increasingly called upon to go in harm's way in a host of worldwide contingencies, we enthusiastically support Air Force initiatives to equip our airlift aircraft with defensive systems. The Air National Guard operates 39 percent of the total C–130 theater airlift forces. We have thus far configured 32 aircraft (about 8 percent of the C–130 fleet) with defensive systems and have Air Force support for 20 additional systems. We must continue this program. Further, funds provided by Congress to modernize the C–130 theater airlift fleet have allowed us to complete the replacement of the 1950's vintage C–130B models with the modern, more capable C–130H aircraft.

The Air National Guard and the Air Force have worked hand-in-hand to develop a unit level training device which supports our F–15 and F–16 units. This low cost device uses off-the-shelf equipment. It replaces existing simulators which are 20 to 30 times more costly. These training devices are more capable and accessible, and provide our pilots user-friendly training. We expect deliveries of these unit level trainers in less than a year. In the future, we expect to continuously improve these training devices by adding visual systems and networking. Each of these capability enhancements improves realistic training and ensures our aircrews are fully ready to respond to any tasking. We are also in partnership with the Air Force in investigating the use of the low cost, unit level trainers for our larger aircraft, such as the C–130. This year we will begin examining a similar program for the A–10.

In the night operations arena the Air National Guard is working closely with Air Combat Command in testing low cost, off-the-shelf capabilities which will allow our A–10's, F–15's, and F–16's to be more effective night fighters. As a first step, the Air Force is providing the Air National Guard a proportional share of the Air Force's near-term night capability upgrade for the A–10 fleet. If our testing is successful on the A–10's, we expect Air Force support for a similar program for Air National Guard F–15's and F–16's. Overall, we have a working partnership with the Air Force to provide quality war-fighting improvements. The Air National Guard goal is to achieve a night war-fighting capability and install adequate defensive systems on all our aircraft. We will then have the capability to fly and fight around the clock. The Air Force has pursued a course which allocates new equipment resources to the Guard and Reserve based upon relative share of force structure, response time, and weapon system capability. We support this approach.

Portable ACMI's allow units to use their "backyard" ranges to train on instrumentated missions. We want these systems. Units can then debrief their missions via graphical computed playback without deploying. Three of the Air National Guard's four combat readiness training centers (CRTC's) have fixed ACMI sites to enhance training.

The Air National Guard continues to be a strong supporter of national counterdrug initiatives. We fielded the first aircraft specifically modified to support local and national law enforcement agencies. The aircraft is the C–26 mission support aircraft which is already in our inventory. We are modifying this aircraft by adding a special pod that contains a forward-looking infrared system to enhance night capability and special cameras made available through the drawdown of our Air National Guard reconnaissance forces. These electronic systems are specifically chosen to support surveillance and reconnaissance missions in counterdrug plans.

The Congress will recall that for fiscal year 1996 we expected to downsize and re-role fighter units. We were programmed to reduce primary aircraft authorized (PAA) fighters from 15 to 12 per unit and re-mission four F–16 air defense units to general purpose forces. This reduction was held in abeyance; however, as our budgets are increasingly constrained, we expect to face future tough force structure decisions. As we make the tough decisions inherent in these actions, our approach will be to downsize rather than close units to the extent possible. Our goal is to maintain our community presence as well as cost-effective war-fighting capability.

The Air National Guard is also transitioning into new missions. The new missions include B–1's based at McConnell AFB, KS and Warner-Robins AFB, GA; a Mobile Ground Station Space mission at Greeley, CO; a reimbursable National Science Foundation mission in Antarctica; a tactical manned reconnaissance capability at Richmond, VA; and 1st Air Force command and control operations at Tyndall AFB, FL.

We are also pursuing potential roles for the Air National Guard in space. In January 1996, we activated the Mobile Ground Station space mission in Greeley, CO. This mission provides survivable, enduring strategic missile warning to USCINCSPACE and the NCA. The 4th Space Warning Squadron, Holloman AFB, has accomplished this mission since 1983. In February 1995 the Air Force approved transition of the unit to the Air National Guard and we reach full operational capability in 1997. Other space initiatives are in planning and coordination phases.

The 109th Airlift Wing at Schenectady, NY will assume a fully reimbursable National Science Foundation mission in Antarctica starting in fiscal year 1999. This mission is currently being performed by the Navy and will transition to the Air National Guard over the next three years.

In March 1995 we began to develop a manned tactical reconnaissance capability to replace retiring RF–4C's. The 192nd Fighter Wing, Richmond, VA, developed the concept and established initial capability with four aircraft, four reconnaissance pods, and 12 trained pilots. We plan to expand the capability to a total of 20 pods. We need manned tactical reconnaissance for high speed, survivable, low altitude penetration of high-threat areas. The new equipment is digital, replacing older, manpower intensive, wet film technology.

The transfer of all air defense command and control operations clearly is a milestone in our history. Although we began in fiscal year 1994, by the end of fiscal year 1997 the Air National Guard will have peacetime control of all Air Combat Command's 1st Air Force and the subordinate Regional Operations Control Centers and Sector Operations Control Centers. This is a precedent setting initiative. Major General Philip G. Killey, former Director of the Air Guard, assumed command of 1st Air Force in January 1994. This marks the first time the Air National Guard has commanded a numbered Air Force. This is an exciting opportunity for the Guard as we continue to expand into new mission areas.

All these new missions make sense for the Air Guard as we respond to changing military force requirements. When properly trained and equipped, we have the skill and capability to cost-effectively execute any Air Force mission.

Complementing our federal role of preparing for national emergencies, we are a vibrant force in our state and local communities. We have begun youth programs in 19 States. These programs capitalize on our facilities and equipment and take advantage of the experience and training of Guard men and women. We are involved in Starbase and National Guard "ChalleNGe" programs which are financed separately from our primary readiness accounts. Our goal in these programs is to be a positive influence on the youth of America with our Air Guard men and women serving as role models to portray a spirit of pride, tradition, and service to community, state and nation.

In addition to youth programs, we are active participants in military-to-military and civilian-to-military initiatives with foreign countries. Complementing these initiatives is our involvement in humanitarian and civic action programs worldwide, including deployments of civil engineers and medics to assist the CINC's with ongoing initiatives. Fourteen states have formed state-nation partnership programs with countries in Eastern Europe or republics of the former Soviet Union. We serve as positive examples of how citizen-soldiers integrate with active duty militaries in democratic societies.

Although we remain engaged in our states and local communities, we also regularly participate in contingency operations. The citizen soldier can and should play a greater role in today's contingencies. We are meeting that challenge. By actively participating in contingency operations, our forces are easing active Air Force OPTEMPO. We have been, and continue to be, involved in operations Deny Flight, Provide Promise, Deliberate Force, Joint Endeavor, Provide Comfort, Southern Watch, and others. We perform side by side with active Air Force and Air Force Reserve units. For example, our A–10 unit from Barnes, MA was involved in Bosnia operations in September 1995 when operation Deliberate Force helped lift the siege of Sarejevo. Air Guard refueling units from Forbes Field, KS; Pease, NH; Fairchild AFB, WA; and Niagara Falls, NY who were deployed to Pisa, Italy and Istres, France became part of the multi-national refueling support during the Captain Scott O'Grady rescue. In addition, the 235th Air Traffic Control Flight from Fort Wayne, IN was the first communications unit to deploy to Hungary in December. They deployed with four radars, 19 controllers (15 ANG and 4 AMC), and maintenance personnel. They set up the unit and began operating within 72 hours. They were ready to deploy and were quickly operational due, in part, to innovative training developed and fielded at the Air National Guard Readiness Center.

Our participation in these and other contingencies vividly demonstrates that the Air National Guard is trained and ready to respond to National priorities. It is a pleasure to be part of an Air Force that believes in, supports, and includes its Guard and Reserve components in planning, programming, budgeting, and execution scenarios. Our weapon systems are interoperable with the active force, our people are fully integrated into training exercises, and our culture is Total Air Force. As a result, we are ready, willing and able to perform any and all missions.

Today's Air National Guard is highly motivated, well trained and properly equipped. We have great people doing a fantastic job. However, retaining the best and brightest poses one of our greatest challenges.

The quality of our current Air National Guard force has never been higher. Over 99 percent of our members hold high school diplomas or advanced degrees. Recruiting and retaining talented people is increasingly difficult. Although we have an adequate recruiting population, uncertainty about future military cuts, coupled with the effects of previously announced force structure downsizing initiatives, have combined to produce a conservative, cautious recruiting environment in many Guard communities. We are working with the states to develop initiatives to ensure we reach our strength goals, while filling critical skill vacancies through the extensive use of enlistment bonuses and the highly visible incentives of the Montgomery G.I.

Bill (MGIB). The MGIB continues to be a major motivation for six-year enlistments with over 83 percent of our Air Guard men and women qualified for benefits and 48 percent of those personnel already applying for benefits.

We can do much through volunteerism, but we must be mindful that we need to keep employers and families on our team and supportive of our participation. When possible, we need planning and notification time. We believe the Nation will depend more on Guard and Reserve forces in the future. We can and are an important participant in contingencies, exercises, and overseas presence.

People are our most important resource. They have proven they can and will respond when we need them. We must continue to provide the tools they need to perform. We must insure they have the best training, equipment and communications possible. To that end, we use technology to improve our training, communication, and efficiency.

"CyberGuard" is the term we have coined to embrace all actions we are taking to prepare for the 21st century. It is not just computers, but every aspect of the Air National Guard—our organizations, our people, our infrastructure, our processes, our technology—the way we work, live, train and fight in a new world driven by rapid advances in technology. Toward that end we are investing in the latest computer technology and fiber-optic backbones at all Guard units. This ties us to the worldwide web and positions us for rapid decision-making, communication, training, and education in the CYBER world.

We are well on our way to using technology not only to communicate rapidly and efficiently, but also to improve training access and versatility. Our Warrior Network is a satellite based system with one way video and two way audio, capable of broadcasting to all Air National Guard locations simultaneously. We plan three uplink stations with downlinks to 208 receive sites. In the future we want to merge the Warrior Network with our fledgling video teleconferencing capability (VTC) and provide a 24 hour mobile VTC for use in disaster response operations.

A natural outgrowth of this improved technology is our new distance learning program. We established a seminar program as an alternative to our six week Noncommissioned Officer Academy to help meet the needs of the traditional Guard member. Students attend classes at their home unit, two nights a week for three hours a night. This phase lasts four-and-one-half months. Students complete the final two weeks in-residence at McGhee Tyson Air National Guard Base, TN. During the home station training, class begins with a live satellite transmission from McGhee Tyson. After the broadcast, a trained on-site facilitator guides students through a discussion of lesson objectives. An instructor is at McGhee Tyson to answer questions. Students in this program perform well on objective tests and on writing and speaking exercises. Most important, students who are unable to attend the six weeks in-residence course receive outstanding education. We look forward to expanding this Distance Learning methodology to other applications.

We are also on the "Quality" journey, we seek to "embed" quality, not "do" it. Our focus is on the basics of quality—continuous improvement, customer orientation, empowerment of people, and measurement. Using these basics, despite tighter budgets, we have maintained our personnel end strength, maintained 94 percent of our units in C–1 or C–2 readiness status, increased our performance on inspections, and 1995 was the safest flying year in the history of the Air Guard—all while maintaining our highest OPTEMPO. Our quality journey plus concentrating on our vision of a world class organization has kept us performing well in tough times. Our vision and our values as citizen soldiers will sustain us in even tougher times ahead.

As we look to the future with an overall smaller force, modernization is still critical to our continued ability to operate side by side with active and Air Force Reserve forces. To this end, it is important that the Air Guard continue to be included in Air Force programs that improve weapon system operational capability, survivability, and safety. The Air National Guard must be included in the full spectrum of war-fighting requirements including critical engine modifications to improve reliability and flight safety; installation of defensive systems to provide warning of potential threats; and equipment which allows us to operate around the clock.

Our strong partnership with the Air Force has produced an Air National Guard properly resourced, trained, and equipped to perform the missions assigned. Our budget request includes funds for training, maintenance, and other requirements essential to maintain our high level of readiness. Given the ever-increasing demand for Air National Guard participation in contingency operations, adequate resourcing in our operation and maintenance and military personnel accounts is key to our continued success.

In summary, we don't intend to do more with less. We will do the right things at sustainable resource levels. Given the budgetary constraints we face for the foreseeable future, we believe it is essential to maintain both an effective fighting force as well as a continued presence in the communities across America. The Air Force and the Air National Guard are working together to find practical and efficient ways to achieve these two objectives. A healthy Air National Guard depends upon a healthy Air Force.

We also believe that whatever the outcome in the debate over national priorities, it is vitally important to maintain a solid military establishment for the nation. The military must remain an attractive opportunity for service despite other competing national priorities.

The total Air Force is a team—Active, Guard and Reserve. We respect and support each other. We work closely together for the good of the nation. The Air National Guard is a world class organization, proud of who we are and what we do. We remain committed to our nation, our states, and our communities. Call—we will be there and when we come we will be able to do the job. The citizen soldier will be even more important in the future.

BIOGRAPHICAL SKETCH OF MAJ. GEN. DONALD W. SHEPPERD

Major General Donald W. Shepperd is the director, Air National Guard, The Pentagon, Washington, D.C. As director, he is responsible for formulating, developing, and coordinating all policies, plans and programs affecting the almost 117,000 Air Guard members in more than 1,300 units throughout the United States, District of Columbia, Puerto Rico, Guam and the Virgin Islands. He graduated from the fourth class of the U.S. Air Force Academy in 1962. After receiving his wings, he was assigned to duty in West Germany and South Vietnam.

He joined the Arizona Air National Guard in August 1974 where he held positions including squadron commander; group deputy commander for operations and group vice commander. In January 1987, he transferred to the Massachusetts ANG as the air commander of the 102d Fighter Interceptor Wing. In July 1989, he was appointed as deputy director, Air National Guard, National Guard Bureau. He is a command pilot, having flown more than 5,000 hours; and flew 247 fighter combat missions in Southeast Asia.

General Shepperd and his wife, Rose, are the parents of a son, Tyler.

SUMMARY STATEMENT

General BACA. Mr. Chairman, thank you for the opportunity to appear before your committee today. With me, representing the Army and Air National Guard, are Maj. Gen. Don Shepperd and Maj. Gen. Bill Navas.

Again, sir, in the interests of time and with your permission I would like to make a brief statement.

Since I last appeared before this committee I visited National Guard units in all the States that are represented by members of this committee here today. As a matter of fact, we visited 47 States in the last 1½ years.

I have been with your National Guard soldiers and airmen in the jungles of Central America, the deserts of the Sinai, in the plains of Turkey, in Haiti, and in Bosnia, and in Hungary, shoulder to shoulder with our active Army and Air Force counterparts supporting the national security objectives.

In January, guardsmen from 22 States sat down with representatives of 22 former Soviet Union and Warsaw Pact nations to develop a mutual understanding of the challenges facing the emerging democracies, to foster trust and confidence, and promote regional stability through people-to-people linkages.

I saw Army and Air Guard men and women sifting through the rubble in Oklahoma City, providing immunizations to children as an adjunct to medical readiness training in Missouri and Pennsylvania, providing essential life-saving services following hurricanes in Florida, floods in West Virginia, and tornadoes in Arkansas, Alabama, and Mississippi, placing their service to their communities and their Nation above self.

I was especially pleased that you, Mr. Chairman, were able to accompany me last summer to visit National Guard units in your own State to see first hand the tremendous capability that exists in our community-based defense force and the support that they provide their State and their Nation.

NATIONAL GUARD MEMORIAL

Senator Inouye, I was deeply moved and filled with pride as I participated in the dedication of the National Guard memorial in Hawaii as we commemorated the defense of World War II and the Pacific.

Eighteen National Guard divisions and 80 separate regimental-sized units participated in that war from Normandy to Bataan. This ceremony in Hawaii carried special significance to me, since guardsmen from my own State of New Mexico are among the heroes of the Pacific who fought valiantly to the end of the Philippines.

I know Senator Domenici would agree with me that the 200th Coast Artillery Regiment is indeed the pride of New Mexico. Many of them were there, sir, to participate in those ceremonies. General Wainwright said of this unit that they were the first to fire and the last to lay down their arms.

The same spirit is the foundation of today's National Guard. Today's National Guard is better equipped, better trained, and better led than at any time in our 360-year history. Our men and women are better educated, highly motivated, and more reflective of the cultural, ethnic, and racial fabric of our communities and the Nation.

We are more fully integrated into our parent services, and believe we remain the cost-effective solution to many of the force structure needs of the Army and the Air Force, now and in the future.

We are working with the Army and Air Force leadership to refine the divisional and air wing structure of the National Guard in order to provide a more relevant, more integrated, and more capable National Guard.

We appreciate the support this committee has given the National Guard. You have ensured that the National Guard is manned, equipped, and resourced to meet today's most critical needs and are postured for the 21st century, but the National Guard budget that is before you is a no-frills budget, framed within a fiscally constrained environment.

However, it is not without risks. Given the available funding, it will be increasingly difficult for the National Guard to maintain troop readiness, meet peacetime commitments, and support existing National Guard infrastructure.

Mr. Chairman and members of the committee, we remain committed to providing America with a National Guard that is properly missioned, relevant to the needs of the services, and the warfighting commanders-in-chiefs, capable and accessible, trained, equipped, and resourced, and manned with America's finest young men and women who remain committed to serving their communities, their States, and their Nation.

Thank you, sir. We are prepared to answer your questions.

Senator STEVENS. Thank you very much, gentlemen. It has always been my opinion that more Americans form their opinions of what people in the military do and their morale and really their general conduct, that they form opinions about all of our armed services by what your units do.

You are in more communities, more places where people, individual Americans, come in contact with the Guard than in any of the other organizations, so I think it is a very meaningful thing to deal with your part of this budget. I am disturbed by the fact that there is a $453 million cut in O&M applied to the National Guard this year from the 1996 level, the level that was approved by the President was almost $500 million down. That is going to be very difficult to deal with.

I do appreciate, General Baca, your coming and your comment about your trip to Alaska.

If you get a chance to get near the world-class salmon we have in our State, you ought to try it, but you did not get that chance.

General BACA. Mr. Chairman, you kept me so busy the whole time I was there, sir, that I did not have a chance.

AIRCRAFT FOR ALASKA

Senator STEVENS. We had weather problems, and we also had some very dedicated people who wanted to meet you and were very proud of the fact that you had come and visited our small native villages. My friend from Hawaii comes up sometimes to visit those villages.

But it is very meaningful. You can now go in some of those small villages—I went back. There is a photograph of Gen. Ed Baca hanging on the wall in those town halls. That is something that never happens, to have the commanding officer of the unit that they know. They have a National Guard unit. So I really think it is very meaningful for you to take that kind of a trip.

But let me get to some details. We are in a situation where we do have to find a way to deal with this budget. I am pleased, now, we were able to swap out your aging UVA team and deal now with the new aircraft, the C–23's and the UH–60's.

Are we now in a position where we have a complete understanding of where those new aircraft are going to go? I know some are coming up our way, but is the plan well known throughout the Guard as to how these aircraft are going to be distributed? General Navas.

General NAVAS. Yes, sir; as you are aware, we had originally $32 million to buy some aircraft for Alaska. The Army has determined that there are excess C–23 Sherpa aircraft in the inventory, so what we have done with General Lesinkoff is to replace the UV–18's in Alaska with Sherpa C–23 aircraft, and then utilize the dollars that were allocated for the procurement of UV–18 replacement aircraft to buy UH–60 Hueys which will build eventually to a 24-ship unit there. That will meet that additional requirement, and it will give some modernized relevant aviation structure to Alaska, and this is part of the work that we are doing with the Adjutant

General to modernize the force structure in Alaska, so we are on track.

The Department has submitted the letters to the four committee chairmen informing them of the movement of the dollars, and we should be able to proceed fairly quickly on that.

THEATER-DEPLOYABLE COMMUNICATIONS

Senator STEVENS. Thank you very much. What about the $18 million now that is in this request for theater-deployable communications? Can you tell us how many Air Guard combat communication squadrons will be fielded and how many will receive funding from this first shot of money in 1997?

General SHEPPERD. Yes, sir; the short answer to that is none. The total bill to equip the Air Force with theater-deployable communications which takes us from the analog communications into the new digital communications is about $400 million spread over 5 years. The funding right now of $120 million is all for active duty.

Even though the Guard has 70 percent of the combat communications, none of the initial purchase is for the Air National Guard. Another $18 million still would not do it. We normally would be putting the first $200 million into active duty and the following $200 million into the Guard and Reserve, so that $18 million is not designated for the Air National Guard.

Senator STEVENS. That does not seem to be quite balanced with what we hear about how you are deploying in tandem with the regular forces. How can you deploy in tandem with them if you are one generation behind in terms of communication equipment?

General SHEPPERD. You cannot, sir. Pure and simple, you cannot, and basically the decision has been made within the building that we are going to equip the active duty forces first because they often go first, but it leaves us in the untenable situation where we go with analog equipment. In a digital world you will not be able to interoperate.

Right now we can do some of it because there is some analog each on each side, but very quickly we will be out of the business of being able to interact meaningfully with combat communications if we do not fix this.

Senator STEVENS. Well, I think you have to tell us—you have a tiered reserve concept, too, about deployment? Do you not have a portion of your people that you know are first in line to be deployed?

General SHEPPERD. We do not have tiered readiness on the Air Force side, sir, because we are quick deployers in almost all of our areas, not only the flying areas but the support areas. The Air Force goes immediately, so we do not have tiered readiness.

We do have people that go first in the various war plans depending on what happens, but we have intentionally avoided the idea of tiered readiness in the Air Force.

Senator STEVENS. We had heavy emphasis on making sure that you had the state-of-the-art combat equipment, but now that is going to be defeated if we do not have those capable of being fully integrated into the communications concepts.

I sort of see this as a setback for what this committee has tried to do. Now, I want you to tell us what would it cost to have funding to keep you up with digital transition. You do not need to do it now. Just give it to us for the record.

[The information follows:]

DIGITAL TRANSITION

The total requirement for the Air National Guard is $200 million. The annual requirement to satisfy the entire program beginning in fiscal year 1997 would be $40 million, spread over a planned five year procurement cycle.

Senator STEVENS. It does seem to me that we are going to miss a lot of interoperability if we do not have a uniform conversion rate in both the regular services and the Guard and Reserve.

General SHEPPERD. No question about that, sir.

RECRUITMENT

Senator STEVENS. I ask the others—General, let me ask you the same thing. What is happening to your force now as far as recruitment and quality of retention, in view of the changes coming about, and are you experiencing the same thing the others are about a 20-percent changeover per year?

General BACA. Yes, sir, that is pretty accurate on the Army side, much less on the air, and the same things apply here—the demographics, the lessening of the pool of the eligibles, initial entries, the reduction in prior-service personnel. As the Army draws down we are going to have to depend more and more on nonprior-service personnel.

One other area that was not mentioned that I think is critical is the fact that also during this downsizing period the propensity to serve has affected our recruiting programs. It is a big challenge, but sir, I can tell you we are meeting the challenge. In the last 3 months we have shown positive increases both in the Army and in the Air Guard.

It is critical we maintain the funding. It is critical that, particularly now as we go more into the nonprior-service market, we keep the funding up so that we do those things that we are talking about in terms of advertising, in terms of those initiatives that are so important, soon as the Montgomery GI bill that help us attract and recruit quality people.

I will say, Senator, that in my visits to the 47 States and including Alaska, Hawaii, and Mississippi, I was just in Mississippi last weekend. I can tell you—Arkansas the same—that we have the highest quality soldiers today than we have had in our 360 years of service, and I said that in my opening statement, and I really mean that.

Senator STEVENS. Yes; I saw that, but what about the interface with ROTC? How much do you get from ROTC? Are we letting down in the emphasis of assistance through high school and college years in terms of an incentive to come into the Guard?

General BACA. There is no question that the ROTC, particularly in the high schools, does provide a recruiting pool for us. I have not seen, and maybe the directors here can add to this, but I have not seen a decline in our participation with ROTC.

At the college level, we start a simultaneous membership program to where now students can be both members of the Guard and members of ROTC. We continue to get an influx of officers, of good quality officers from the ROTC program.

Senator STEVENS. I was of the opinion we had downgraded the funding for high school ROTC throughout the country.

General BACA. There has been some of that, yes, sir; there is no question about that, but those that are left we are still working with, and we are still getting the recruits in.

Senator STEVENS. Has anyone compared the cost of recruitment of the non-ROTC compared to the cost of the involvement in ROTC and the resulting enlistment in the Guard?

General BACA. I do not think there would be any difference, sir, with regard to recruiting high school ROTC members.

Senator STEVENS. But the cost of that system in the ROTC, apparently we are not spending the money we used to spend on high school ROTC. Am I wrong?

General BACA. No, sir; I believe you are right on that. I do not have the statistics. I do not have the figures on that, so I could not tell you exactly.

Senator STEVENS. The Guard really does not have much to do with ROTC.

General BACA. We do not draw on the ROTC program, sir, in high school. We do not have anything to do with those?

Senator STEVENS. Why not?

General NAVAS. Sir, from what I understand, the Junior ROTC program is basically a high school program that, as far as I understand, is not intended to be an entry program into the military, and I think that is handled separate from the Reserve component, and so I do not think there is a correlation there, but I am not sure that is the case.

Senator STEVENS. Well, up my way the Guard has real standing in the rural communities, and if they were involved more in the high school efforts I think there would be more integration within the community and there would be a better interface there of getting people coming out of high school to enlist in the Guard or Reserves or the regular, coming out of high school. That is what we are recruiting, is it not, basically high school graduates?

General BACA. Yes, sir.

General NAVAS. Yes, sir; and if I may, sir, right now the Army National Guard is at 98.8 percent of its program strength, and we are confident that we will meet our end strength requirements for the year. It has been our No. 1 priority.

The key here to what we are seeing is like from the other services. We are seeing there is a shifting as we complete the drawdowns in the active components of less prior service individuals coming in, so that makes our market more the high school.

Senator STEVENS. That is where I am going. I mean, you have been dealing with a pool that is coming out of service. They have been involuntarily eliminated in the downsizing of the regular Army, and now that is gone. There is not going to be any more of those people. You have maybe one shot at the most, about 20,000 more people coming out of the regulars, and you are going to have to change your whole recruitment pattern.

How many of your people actually, of this 20 percent, had you been getting from the regular Army in the last years?

General NAVAS. Sir, we were getting about, roughly a 60-percent prior service, 40 percent nonprior service. That is shifting very rapidly, and we project that to be quite basically the opposite a couple of years from now we are looking at about 60 percent nonprior service and 40 percent prior service, so that is the shifting balance that I mentioned. Rightfully, like you say, our target population for recruiting in the Army Guard, nonprior service, is the current and the last two high school classes. That is basically where we get the majority of our nonprior service.

ROTC PROGRAM

Senator STEVENS. But why should you not have more relationship to the high school classes in terms of ROTC? You have got the connection there. You make the recruitment right through that process.

General NAVAS. Sir, this is something I need to take back. We do not run the Junior ROTC program. I might be wrong here, but as far as I think the Junior ROTC program is not intended to be a feeder into the services. That is something that I am giving you my opinion, and I will have to go back.

I see a linkage there, and that might be something that needs to be looked at, but right now that is not there.

Senator STEVENS. We will pursue it with the command structure, but my opinion is that we need to find a way to have a better connection earlier than just in terms of the walk into a recruitment office.

I do believe there is a lot more to having people who are outstanding guardsmen going in there and being involved with high school classes in the junior and the senior year, and going after people that they know have shown an aptitude, and trying to get them into the Guard.

General NAVAS. Sir, and we do that, and we are very active in the high schools with our recruiting and retention force. Not all high schools have the Junior ROTC program, and we are very active in those, so we do that.

Senator STEVENS. Well, I would like to see all the high schools have the opportunity to have a Junior ROTC program.

Senator Inouye.

Senator INOUYE. Thank you very much.

READINESS

Six years ago, when we began the downsizing of our military, we were assured that we would be ready and prepared to participate in two major regional conflicts. Now it appears we may not be able to do so, and, therefore, the so-called enhanced brigade becomes an absolute necessity. What is the level of readiness required for personnel and for equipment? Are we there now?

General NAVAS. Sir, as you aptly noted, we established as part of the "Bottom-Up Review" the establishment of 15 enhanced brigades in the Army National Guard. This is going to happen over a period of several years. The brigades became part of this program in fiscal year 1996, October 1995, and they are not expected to reach that level of maturity until the first day of fiscal year 1999. There is a requirement to convert some of that structure. Some of the brigades were internal, divisional brigades that have to be converted physically to what is a separate brigade which has a part of the combat support and service support slice. We are now in that process.

Right now, the 15 enhanced brigades, we have 1 that meets that requirement. That is the unit in Louisiana. We have two brigades this year that are going to be undergoing the NTC rotation, and at the end of that period they will be at that level. That is the 48th Brigade in Georgia and the 39th Brigade in Arkansas. I recently visited both brigades in their preparation and training.

The rest of the brigades, six will come on board in fiscal year 1997, and the remainder of them in 1998. We have a three-pronged strategy to accomplish this. The first part of the strategy is internal to the National Guard Bureau, which is the higher resourcing of these brigades, of equipping and manning, to include full-time manning.

We have made a conscious effort to raise the level of assigned strength to those units to 110 percent strength, the full-time manning, the AGR's to an 80 percent strength, 80 percent MOS qualification and the like, so that those units would be, at the time they are enhanced, at a C–1 for personnel and a C–1 for equipment and a C–3 in training to complete their post mobilization training within a 90-day window. That is what we are committed to.

The Forces Command, in conjunction with the National Guard Bureau, is working at training strategy to attain that level of training. This is affiliating those brigades with active component divisions, establishing a matrix over a 5-year period of gates that these units need to meet to be validated, and then the third part of that strategy is with the Department and the Joint Chiefs of Staff to apportion them and to assign them to the war fights, and we are making progress in that.

Right now we have our units identified, and then we are working to the specifics, and so I would say that the program is on track. It is not expected to be completed until fiscal year 1999, but we are on schedule and underway.

Senator INOUYE. So there are no equipment shortfalls?

EQUIPMENT SHORTFALLS

General NAVAS. The equipment shortfalls have been identified. It is a part of the list that we have submitted at the request of others. The Department has recognized it, and those are the higher priority units for equipment and resourcing.

Senator INOUYE. Well, I am glad you believe so, because we have been receiving letters from commanders advising us that there are shortfalls.

General NAVAS. Yes, sir; and again remember I am looking at a window of 1999, and if you talk to a commander today on the ground, yes, he has some shortfalls, but we are programming to meet that gate at the end of September 1998.

Senator INOUYE. When that gate comes along, are you satisfied we will be able to meet the C–1 level of 90-day deployment standard?

General NAVAS. Yes, sir; we are confident. As a matter of fact, we feel that some of those units would meet those gates before that time as we progress toward that goal.

Senator INOUYE. General Baca, as you know, the fiscal year 1996 authorization bill ends the so-called Youth ChalleNGe Program. Was that a wise decision on the part of the Congress?

General BACA. Sir, they extended the program for 18 months. I think we have a life until August of next year with the Youth ChalleNGe Program. It is my personal opinion, sir, that that is not a wise decision.

I think the Youth ChalleNGe Program is one of the most economic programs that we have that deals with youth. I can tell you that the success rates of the Youth ChalleNGe Program of those youth, those at-risk youth that come into the program, those 16- to 18-year-old kids we bring into the program, it costs us approximately about $14,000 for the 6-months resident training that we give them. Many of those youths would otherwise be in very serious trouble, probably in jail, and it would cost you much, much more to incarcerate them, and much more to put them through any other type of program.

I think it is a real cost-effective way. We have got the infrastructure, we have got the Guard folks that provide the training for this youth, and for the record I can give you some statistics, Senator, that would show you the total success of this program.

Senator INOUYE. Fine. I would like to get that for the record.

[The information follows:]

YOUTH CHALLENGE PROGRAM

Since beginning in 1993, the National Guard's Youth ChalleNGe program has produced 6,300 graduates from programs in 15 states. Of those who have completed the program, 76.4 percent have obtained the General Educational Development (GED) diploma, a rate higher than national GED or high school graduate percentages. In the most recent class, a 79 percent retention rate was attained, a rate higher than the national average and significant because 100 percent of the students begin their ChalleNGe class as a high school dropout or expellee.

After finishing the program, 93 percent of all graduates end up employed, in college, or returned to high school or trade school. A further analysis of this most recent graduating class shows: 45 percent employed, 14 percent attending college, 6 percent in the military, 4 percent return to high school, 10 percent attending vocational college or center, 14 percent awaiting employment or college acceptance.

ChalleNGe costs $14,000 per youth. By comparison, jail costs an average $39,000 per year (consider further that approximately 80 percent of high school dropouts get in trouble with the law and about 80 percent of first time offenders are high school dropouts). Boys Town costs $49,000 per year; National Service Civilian Community Corps costs approximately $35,000; group homes cost approximately $31,000; and the Job Corps $22,000, not including Department of Labor overhead which increases this total to more than $30,000.

YOUTH CHALLENGE PROGRAM

Senator INOUYE. Is it also a recruiting pool?

General BACA. It does serve as a recruiting pool, there is no question. We have a success rate here that shows about 98 percent of these youngsters that graduate become very viable members of their communities, and some of those do join the Guard.

We have had a problem as far as them joining the services, because they do get their GED while they go through this program, at least 80 percent of them, or almost 80 percent of them get their GED when they get through the program, but there has been a limitation. There are restrictions by most of the services in recruiting nonhigh school graduates.

Senator INOUYE. General Baca, a couple of years ago, together with the Army, you concluded the off-site agreement. Are you implementing this agreement?

General BACA. Yes, sir; it is being implemented. The off-site agreement resulted in an end strength of 367,000 with a force structure allowance of 405,000 for the Army National Guard, 208,000 for the Army Reserve and we are living within that off-site agreement, and we appreciate the fact that last year, Senator, that you put it in the authorization bill, and those strength figures are there.

Senator INOUYE. And you are satisfied that you are on track?

General BACA. I am satisfied we are on track, and that the Army is living up to their part of it as well as the Reserve and the Guard.

FORCE STRUCTURE

Senator INOUYE. How is the Air Guard doing? Are you satisfied with your equipment?

General SHEPPERD. Several things on the Air Guard side, sir. When you say, are we satisfied, the biggest issue facing us is force structure. Because of the dollars available in this budget we have once again cut our airplanes per squadron, in our general purpose squadrons down to 12 airplanes per squadron.

We have done that because we realize our national strategy will be coming up reportedly next spring, and we expect after that strategy review to have to make some very tough force structure decisions about the Air Force and the Air National Guard, and we think the time to decide the force mix and numbers of airplanes is at that time, so rather than close units we have decided to cut to 12 airplanes in these units.

We do not like it. The Congress told us not to do it last year, but those are the dollars available to us.

Senator STEVENS. Could I get in there just a minute? I do not understand this. We gave you the money for 15, and you reduced it to 12. I do not know what happened to the money we gave you to maintain that at 15, but now the budget says reduce it down to 10 at five specific Air Guard units. Where are those decisions coming from?

General SHEPPERD. We are mixing several issues here, sir. The money that was given us to maintain 15 airplanes was in the 1996 budget, and the budget that we are testifying now on is the 1997 budget, so we do not have the money to maintain 15 airplanes in 1997. We are going down to 12.

The 10 aircraft you referred to is the C–130's, and the C–130's we have five units at 12 airplanes and again, because of money, we are taking them down to 10 airplanes, and that is in the 1997 budget. Both the fighters and the C–130's are reduced in the 1997 budget.

Senator STEVENS. We added $49 million to take you from 12 back up to 15.

General SHEPPERD. In 1996, yes, sir.

Senator STEVENS. And we said not to go below 15.

General SHEPPERD. Yes, sir.

Senator STEVENS. But you have gone to 12.

General SHEPPERD. We are going to 12 in 1997, sir, because of the money.

Senator STEVENS. You have not done that yet?

General SHEPPERD. We have not done it yet. That will be effective October 1 of this year, going into fiscal year 1997.

Senator STEVENS. But now you are going to reduce at least the C–130's from 12 to 10 in West Virginia, Kentucky, North Carolina, Tennessee, and California. Why? Who made that decision?

General SHEPPERD. Sir, it was made in the building because of budgets. In other words, when I get the budget, basically I decide what to do along with the Air Force, and that is the money that we have.

Now, another way to go about these things, of course, is to bump up our airplanes to 24 airplanes per fighter unit and close a bunch of units. I do not think it is smart to do that for obvious reasons.

Until we have a strategy review, it is our opinion that in the strategy review and because of reduced budgets out there we are going to have to put more into the Guard and Reserve, and so to take units down or close units and then have to build them back up would make no sense, so we are trying to buy time by going down to 12 airplanes.

Senator STEVENS. I am sorry, Senator.

ARMORY IN THE COMMUNITY

Senator INOUYE. Mr. Chairman, I would like to make an observation. As part of my responsibilities as a member of the Indian Affairs Committee, I have been to Alaska about six times, twice above the Arctic Circle, visiting villages, and in many of these small villages the center of community activity is the small armory, and as the chairman pointed out, as a result the lead element or the leadership group in every village is the National Guard.

They make it a point to aggressively open their doors so that the community can use their facilities. That may be the only telephone in that village, for example. This may be the only place with a heating arrangement. Why do we not do that throughout the United States?

I have been to other National Guard armories, and they are well-kept, but it does not seem to be in the same welcome mat arrangement as you find in Alaska. I think you are missing a good opportunity.

General BACA. Senator Inouye——

Senator INOUYE. In other words, every graduation dance is in the armory, every high school commencement exercise is in the armory, and in Alaska, that is the center.

General BACA. Sir, I would say that that is not exclusive to Alaska. In most of the States that I have visited, particularly in the smaller communities, the armory is the center for the community, and Senator Domenici can tell you, in our home State of New Mexico it works that way. The armory is used probably as much or more by the community as it is by the National Guard, so I think that there is no question that that exists in Alaska, but I think as I have seen, that exists throughout the country.

I agree with you, Senator Stevens, that the National Guard is the link between the American people and the Department of Defense, and there is no question about that, and that the people there, how good the Guard unit is in that community really reflects to the people there, as far as they are concerned, how good the military is.

Senator STEVENS. The highest enlistment rates in the military come out of those villages where you have the important position, and you are the role models.

General BACA. Yes, sir.

Senator STEVENS. And I think we ought to seek to take that into every high school and every community in the country. It works.

General BACA. Yes, sir.

Senator BUMPERS. The armory, that is the only place we have to dance in my home town. [Laughter.]

Senator DOMENICI. What did you say, Senator? I did not hear you.

Senator BUMPERS. I said in Charleston, AR, my home town, population 2,000, the National Guard armory is the only place we have to dance.

Senator STEVENS. Are you through, Senator?

Senator INOUYE. Yes; thank you.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Mr. Chairman, let me clarify. General Shepperd, you said that your ratcheting down the size of the number of airplanes and units like you have done in Albuquerque, and you want to keep all the sites at a reduced number of aircraft, and I thought I heard you say you are waiting for something. What was that?

NATIONAL STRATEGY REVIEW

General SHEPPERD. Yes, sir; we believe there will be a national strategy review in the spring next year. As a result of reduced budgets we believe we will face, we will decide what is our new strategy. Then we will take a look at budgets along with that strategy and we will decide at that time whether to put more into the Guard and Reserve and what the fighter force mix will be between the active and Guard and Reserve.

Right now, it is 13 active duty and 7 Guard and Reserve with 6 of them in the Guard. There have been some proposals to change that, and we may do it, but we want to wait and I do not want to close units until such time as we know where we are going in that whole area.

Senator DOMENICI. Well, I thought maybe you were waiting for increased budgets. I mean, what I have seen, the President is the only budget around that says I will increase you in the future. You know, I do not believe that. So in any event, I will just put that on the record.

I believe that you are going to have to count on budgets that we produce to give you any increases. I think it is interesting for the President to be able to spend more in domestic this year by reducing military $13 billion less than last year. It is kind of unrealistic, in my opinion.

We have everybody coming up here saying we need all of these things, and I do not think their really wish list—I think you are really saying wish list because you do not want to say what it really is, and that is things you know you need that got left out of the budget in many cases.

But what I understand is, if you keep all the sites, that what you are doing is proportionally you are maintaining a very high level of headquarter expenditures and reducing the level of expenditures on airplanes.

Now, let me say as I am not very impressed, as one Senator, that that is a very good strategy. Now, you might convince us that for 1 year you want to do it because you do not know where you are going to end up, but I just think we have units to have airplanes. We do not have units to have headquarters for less airplanes, and I understand the politics, but I just want to express myself that I do not think in the unit there in Albuquerque with F–16's, brand new ones, that anybody is served by reducing the number of airplanes significantly. I think the reverse should be the case.

General SHEPPERD. I agree with you, Senator. We have done a very careful study, and we have come down in fighter airplanes from 24 airplanes per squadron to 18 and 15, and now in this particular budget down to 12. Nobody thinks it is a good idea. We have reduced our manning at the same time, including our headquarters, but 12 is as low as we could go.

Now, the tradeoff in this area is efficiency. Clearly we would be more efficient with 24 airplanes in a squadron, but we would have to close some units. I want to be very careful and very wise about doing that, because we do not want to come out of the communities of America. We could have a very cost-effective operation, with no support from the American people. I want to balance that, and certainly not go below 12, but my tendency would be to close and combine units if we are going to sustain ourselves at 12 airplanes over time.

Senator DOMENICI. Mr. Chairman, do we have the numbers from the military as to how much it would cost to keep it at 15? Have those numbers been submitted?

General SHEPPERD. Yes, sir, they have. They have been submitted to the committee, and for instance, for fiscal year 1997 the cost is approximately $60 million.

Senator DOMENICI. That is for everything?

General SHEPPERD. Correct, sir.

Senator DOMENICI. First I want to back up.

Senator STEVENS. I have questions I am going to submit that specifically ask that those responses we got to the staff be put in the record and be provided officially from you all for the record. That number will be in the record.

REDUCTION IN FUNDING

Senator DOMENICI. The $453 million reduction in the President's budget over last year's funding is O&M money, or what kind of money is that?

General NAVAS. Sir, it is both. It is both operations and Milcon and personnel, so it is O&M, personnel, and in my case some of that military construction.

Senator DOMENICI. I forgot to open my statement, Mr. Chairman, and I will do this now by congratulating our distinguished New Mexican, General Baca. We knew when he got appointed he was going to do a superb job, and I think he has done that in every respect, and I want to congratulate him in the record and tell him that I am very proud that the President nominated you and that we confirmed you and you are doing what you are doing.

General BACA. Thank you, Senator.

Senator DOMENICI. I want to ask a question with reference to some ideas that are being bandied around that kind of concern me, and I would like very much for you to talk a bit about it.

There is an argument going on, is there not, about reorganizing the Guard in terms of whether they should become more support units to the active military, or whether they should remain in a state of readiness so that they are used as a combat unit. Where is that argument and debate at this point, and what is your position with reference to that?

General BACA. Sir, let me—if you do not mind, this deals mostly with the Army, but let me just make a general statement with regard to that.

We are working now with the Army, in concert with the Army to come up with the proper structure so that we can properly be integrated into the active components, and then it will meet their requirements and it will meet the requirements of the total Army as well as the Guard.

Our goal when we come out of this is to come up with a balanced force, sir, that includes combat, combat support, and combat service support, all three. We think it is essential that the National Guard remain a balanced force, and this is what we are striving to attain.

We have been working with the active component, having direct input into the general officer working group established by the active component. It is a work in progress right now, and I would now like to turn over to General Navas so that he can bring us up to date.

General NAVAS. The issue here stems basically from the report of the Commission on Roles and Missions that stated that there was a shortfall in combat support and combat service support in the Army—in the total Army—and there was an excess of combat structure in the Army. A group was put together to study the eight National Guard divisions, which is a strategic reserve according to the "Bottom-Up Review."

We worked together within the Army and with the Adjutants General of the 54 States and territories and the eight division commanders. The Army staff has submitted to the Chief of Staff of the Army, a proposal that would convert about 50,000 spaces from the combat structure in the Army to buy the shortfall of combat support and combat service support, and then restructure the balance of the six National Guard divisions into a more integrated, more viable combat structure.

The Army Guard continues to maintain that we must be a balanced force of combat, combat service support, and combat support, because, different to the other Reserve components that augment and reinforce their parent services, the mission of the Guard is to expand the Army. The coin of the realm is that the Guard expands the Army by having additional divisions. We have done this historically in all our wars.

So that what we are basically trying to do is meet the short-term needs of the Army in the combat service support arena, make our divisions more robust, and also try to integrate better the Army. Like General Baca said, this is a work in progress. We are making great progress, and we feel confident that, as we emerge out of this, we are going to have a better, balanced force, a more relevant force, and, hopefully, a mission force across the spectrum in the case of the Army Guard.

Senator DOMENICI. Mr. Chairman, I have two questions that I want to submit in writing. I just want to state them here. If Desert Storm were to reoccur today, how many Army Guard and Reserve combat units could deploy in 30 days, 60 days, and 90 days, and how many combat support units could deploy in 30 days, and how many combat service support units? And also, I would like you to tell us for the record, if there is a decision to reorient the missions of the Army Reserve and Guard or to downsize it, what type of units are most likely to be affected, and perhaps some indication of where they might come from.

Could you do that for the record?

General NAVAS. Yes, sir, we could submit that for the record. But if I could just mention that we have tiered our resources. We have now units that are supposed to be ready to go between zero and 30 days after a contingency. That is, as a part of the force generation model. We have those units. They are available now. We have the second tier, which is the special forces units and the echelons above artillery, which are within; the window. And then, like I mentioned to Senator Inouye, we are making progress with the enhanced brigades. And then, our fourth level is ambitious, but we will submit all that for the record with the appropriate data.

[The information follows:]

TIERED RESOURCING

As I mentioned earlier we have tiered our resources to ensure that those units that are early deployers, 0–75 days, can meet deployment criteria. ARNG units are prioritized and arrayed across five managed levels of resourcing. Units in Force Support Package 1, which are our earliest deployers, are in our first level. Force Support Package 2 units along with Special Forces are in level two. Level three consists of the fifteen Enhanced Readiness Brigades and Echelons Above Division Field Artillery units. The fourth level, which comprises the largest segment of the ARNG force is made up of the eight ARNG Divisions, two separate brigades and the Alaskan Scout group. Management of this fourth level is our most ambitious undertaking. Resourcing for these units is significantly lower than that of the first three levels, yet the majority of deployments and non-contingency operational support to the active component comes from this level. The ongoing efforts in the division redesign also provides a significant challenge to managing our resources. The fifth level is established to manage the lowest priority units, most TDA structure, and those units scheduled to inactivate and leave the force.

RESERVE PAY

Senator DOMENICI. Mr. Chairman, I know my time is up, but just one quick one. I think somebody has this already or knows this number. We were speaking of the pay as it applied to reservists and guards people, and I do not think anybody asked if you have an estimate of the number of your members whose Reserve pay is their major source of income. Do you know that or could you supply it for the record?

General BACA. No, sir; we would have to get that answer for you for the record, sir.

Senator DOMENICI. I think that would be interesting to this committee, with reference to the relevancy of pay.

General BACA. Yes, sir.

Senator DOMENICI. Thank you, Mr. Chairman.

[The information follows:]

RESERVE PAY AS A MAJOR SOURCE OF INCOME

We have an estimate of the number of members whose Reserve pay is their major source of income. Based upon the most current data available, there are 57,010 Army National Guard members coded in SIDPERS–ARNG as full time students and 80,061 who are coded as unemployed. These soldiers may be primarily dependent upon their Reserve pay as their major source of income. In most cases, this employment status probably reflects the status of the individual at the time of procurement rather than what the member is today.

Senator BUMPERS. You are not talking about the permanent guardsmen?

Senator DOMENICI. No; I am just saying that apparently, in the country, there are a large number of reservists whose principal pay is the Reserve pay. Now, I am not telling you why that occurs or exists, but I think that is a fact. And I would just like to know how many.

General SHEPPERD. We used to refer to them on the air side as Guard bums, sir. We now call them totally available persons. [Laughter.]

However, they are shrinking as a group out there because of the economy, airline hiring, and that type of thing. But we rely on a lot of those people to do our OPTEMPO.

Senator DOMENICI. Thank you, very much.

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you.

BOSNIA DEPLOYMENT

General Baca, I know in Desert Storm, we had a tremendous number of missions flown out of our State by a Mississippi Air National Guard unit in Jackson in support of that operation. I do not know how many missions were flown, but a very, very high number. And I am curious to know the extent to which the Guard is involved in the Bosnia deployment, either directly or in support of that deployment. Can you give us a report?

General BACA. Yes, sir; let me just say this, and then I will turn it over to General Shepperd to give you the details. But I was just in Mississippi and boasting that the 173d Airlift Wing was one of the first units into the Persian Gulf.

Senator COCHRAN. That is right.

General BACA. And they will be one of the first units to get the C–17 also. But General Shepperd can comment more on that.

General SHEPPERD. Our involvement in Bosnia is spread across all of our mission areas. As far as your involvement in Mississippi itself, you do not see a lot of C–141's flying into Bosnia, into Tuzla and Tazar, and those type of places, but you see them backfilling for active duty people that are doing it. So they are part of the regular rotations. Now, today, I have 12 C–130's over there flying out of Ramstein into Bosnia and resupplying all of those things. We have combat communications people and air traffic control people in Tazar in Hungary. We have other fighter units spread around.

So, as far as the number of people actually involved in Bosnia, that are in Bosnia on the air side, it is very, very few, but flying missions in and out of there all the time is what we do.

Now, as you mentioned, on the air side, we were—and this is an interesting vignette for you—the first airplane airborne from America in Desert Shield. Before things broke out, there was a C–141 from the Jackson, MS, unit, with 11 of our 14 crews on board, all volunteers, sent out there to basically set the stage for the movement. They did not take their airplanes, but they took their people to go be stage crews out there to set this thing up.

So people said it proves people will do anything to get out of Mississippi in the summer, but I think it was much more complicated than that. [Laughter.]

They went in with very heavy involvement, as you know. So guardsmen and women are doing things. And not only are we going to Bosnia, but when the active duty now goes to Bosnia, we are backfilling in the States in all of the exercises and this type of thing.

Our life has changed dramatically. We used to stay home and train for the big one. We still do that. We were doing maybe five overseas deployments. We still do those things, except we are in every exercise, 20 major overseas deployments for training, and then we are side by side, doing regular rotation in contingencies. The other thing that does not show up is any contingency that comes up, whether it is Bosnia, whether it is Somalia, whether it is Haiti, the active Air Force immediately needs all our tankers and our airlift, and, of course, your airplanes from Jackson. That is a total change in our life from the way we used to operate. It is the price of the modern world.

Senator COCHRAN. I know the Army is supplying some units, too, in support of the deployment. Can you tell us about that, General Navas?

General NAVAS. Yes, sir, we have about 980 individuals, 27 units from 19 States. We have some in Bosnia and Germany. As a matter of fact, I recently visited the Mississippi M.P. unit providing support there at EUCOM headquarters in Stuttgart. They are doing a tremendous job.

Senator COCHRAN. One of the family members called my office the other day and asked me when they were going to get to come home.

General NAVAS. Well, sir, that is the question that they all have. And, as you know, we are working that precise issue. You heard my counterpart, General Baratz. Our individuals have been called up for a 270-day period. And that depends whether we are going to pull some of those back and backfill them until the end of the mission. We are still working that. So what I have been telling them is that they have a set of orders for 270 days and to plan on that as a worst-case scenario.

But we have had a great success story here. Out of our 954 individuals or parts of units called up, we had only 9 individuals that were nondeployable. That is over 99 percent. These individuals, if you recall, deployed over the Christmas holidays. We protected our high-priority units, the ones that I mentioned earlier that are the ones that are supposed to go to a major regional contingency between zero and 30 days. So we went to lower-priority units, yet those units were ready, and we deployed them.

We have a great success story in Bosnia itself, where the United States Task Force Eagle is providing artillery support to a Nordic brigade, made up of units from Norway, Sweden, Finland, and Poland. And we provided field artillery, a forward support element from the 28th Division in Pennsylvania, to provide the forward support. These individuals, Pennsylvania guardsmen, are going out on patrols as forward observers for this Nordic brigade. I visited with them. The morale is high. They feel they are doing great. So I think that this has been a real success story on a callup of units for a contingency.

RESTRUCTURING

Senator COCHRAN. General Baca, I hope that your predecessor in your job, Gen. Mickey Walker, was a good member of your advance team when you visited Mississippi.

General BACA. Absolutely, sir, he sure was. I just had a real problem, though, sir. I was a speaker at their conference, and I had to follow Congressman Montgomery and General Montgomery and General Walker, and I told them there that I guess when I die and go to heaven and I reach the pearly gates it will be my luck that I will have to follow the Pope and Billy Graham. It would probably be easier than following those two in Mississippi.

Senator COCHRAN. Well, they are all heroes in our State. We were very glad you visited the State. We appreciate that very much, and you honor us by that. I know that consolidation of units and closing of armories and this kind of thing continues to create anxieties, and there are more rumors than there are realities to deal with. But have we reached the end of the worst, or is the worst over, or will there be more of this, in your view, in the years ahead?

General BACA. Sir, I think we have reached the worst of the first restructuring. And I think there is no question that as we go into the future and as we start to determine what the force is going to look like, active Guard and Reserve, in the 21st century, as we go into it, and we start facing the realities of the budget, that there is again going to be some more restructuring and there is going to be some more turbulence.

But it is amazing to me, sir, in the last 4 or 5 years, how we have been able to manage that turbulence and have been able to maintain the high states of readiness that we have, and recruit and retain the quality people that we have, in spite of all of the problems that we have had.

Senator COCHRAN. General Navas, you mentioned that there were 15 National Guard enhanced readiness brigades helping to meet the challenge of providing support of active forces, and you are trying to have this balanced force structure. And you responded to Senator Domenici's question on that subject. My question is: Is there a sufficient amount of funding for these brigades in this year's budget request?

General NAVAS. Sir, as you know, we have had to tier our readiness, our funding. We are basically no different than the active component in buying near-term readiness against other long term. So what we have been able to do is give high priority in funding to our earlier-deploying units.

What I am committed to, and thus far I have been able to do it in 1996 and I am confident that I might be able to do it in 1997, is to provide a base level of readiness to all of the structure in the Army National Guard, which is what I call a baseline C–3. Which means that I would authorize them to be manned at 86 percent strength, 50 percent full-time manning, 80 percent for the other higher units, and 65 percent MOS qualification for those. That is the baseline. The enhanced brigades are about the middle of that band, and we are resourcing them at a higher level. Hopefully, as we start building up, by the end of 1998 or the beginning of 1999, we will be there. But it is a very, very tough job, because we have to almost micromanage those resources going to the right units.

CAMP SHELBY

Senator COCHRAN. One of the things we are trying to do in Mississippi at Camp Shelby, which is a training base for Mississippi, for the 155th Armored Brigade and other units training there, we are trying to get the gunnery range equipped to handle the modern demands for Bradley and Abrams platoons. Is the construction of this range complex a priority of yours and the Army National Guard?

General NAVAS. Yes, sir; it is a priority. Ranges and training facilities, especially for the enhanced brigades, are priorities. As you are aware, our Milcon budget is basically nonexistent for the same reason that I mentioned of buying near-term readiness against long-term requirements. However, other committees of the Senate have asked us for a list of prioritized military construction projects to the amount of $250 million. We have submitted that to the appropriate committees, and those ranges are in that list.

Senator COCHRAN. Thank you very much.

I know that my time is up. When are we going to get the C–17's? That was mentioned by you, General Baca, or you, as to supplement the C–141's there in Mississippi. Do you have a timetable for that?

General SHEPPERD. I do not have the date, sir, but the date is important to me, and to you also, because the C–141's are all supposed to be parked by the year 2005. And, as you know, the C–17 procurement stretches out over several years. So I am very interested in watching that, but I do not have a date to tell you at this time.

Senator COCHRAN. OK, thank you very much.

Senator STEVENS. Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman.

General Baca, we are not building a single armory this year, and there are none requested for 1997. We have 3,000 armories in this country; how long are we going to be able to continue this?

General BACA. Sir, I think that is a real critical problem. I would say that we cannot continue without an adequate construction program, that we cannot continue to maintain those facilities for very long, sir. There is no question that we need to change our emphasis. We need to put a lot of emphasis on that infrastructure. That infrastructure, as we have talked already, those armories, not only provide a resource for the communities but are extremely essential and critical for our readiness, for our training. So I think it is a problem that we need to address and one that we need your help with, sir.

MLRS BATTERY

Senator BUMPERS. Well, let me just say in that connection that we were very reluctant—I know of three armories in my State that are pretty critical—but we are reluctant to substitute our judgment for yours about where the most critical needs are in this area. I think, if the request has been made, obviously this committee would fund it. Because I think everybody here shares my concern that this is going to develop into a critical situation if we just continue doing nothing on armories.

Second, a very provincial question: When can the 142d Field Artillery Brigade, in my State, anticipate getting their first MLRS battery General Navas?

General NAVAS. Sir, on the issue of the MLRS, as you know, we are scheduled for next fiscal year—I am looking at my note here—we are fielding an MLRS battalion in South Dakota and Arkansas. The first battery is going to go to South Dakota, the second to Arkansas. It is going to be during fiscal year 1998 that we will complete that procurement. However, we have a shortfall of $67.2 million that is required to be able to modernize those tubes. And I can provide the actual information for the record on that.

Senator BUMPERS. So you are saying it is going to be 1998 before we get our first battery?

General NAVAS. Sir, let me give you the actual dates on the MLRS. Sir, the first will be the second quarter of fiscal year 1998, and the last unit to complete the battalion will be the first quarter of 1999. That is for both South Dakota and Arkansas, the next two battalions. But there is still a shortfall of $67.2 million.

Senator BUMPERS. OK. General Navas, I do not know whether to ask this of you or General Baca, but the BRAC Commission assumed that the Army was going to supply the Guard with enough money to operate Fort Indiantown Gap, Fort Pickett, and Fort Chaffee.

General NAVAS. Yes, sir.

Senator BUMPERS. As I recall, that was estimated at $21 million. I am now told that that could run as much as $27 million. Is that a fair statement or not?

General NAVAS. Yes, sir; where we are now, as you know, BRAC basically transferred Pickett, Chaffee, McClellan, and Indiantown Gap, and they become National Guard enclaves at different dates. We are looking at the 1997 dollars for transition that the Army is supposed to give us, and we are still basically dealing with the 1997 budget. That is about $1.6 million to start the process in Chaffee, and $1.5 million for Fort Pickett.

Senator BUMPERS. Now, these are transition costs?

General NAVAS. These are transition costs. We are building the 1998 POM, and there is a piece in the POM for $27.7 million that has been documented in the POM to be able to take over Chaffee and Pickett in the 1998, Fort Indiantown Gap in 1999, and McClellan in 2000. Of course, this is basically documented in the POM; we need to see how the POM comes out, and then, of course, the 1998 budget supplement. But there is visibility on these issues, and I have been working very, very closely with the Adjutant General and our staffs are working together to try to make that transition as smooth as possible.

Senator BUMPERS. Now, let me just make this statement. I think General Thrash, our Adjutant General down there, strongly favors—and if he favors it, I favor it—partnering Arkansas with Russia, under the Partnership for Peace Program. Are you familiar with that, General Baca?

General BACA. Yes, sir, very familiar with it. General Thrash, as a matter of fact, is here in Washington this week as a part of a committee of a 10 general officer working group that I have appointed to help me develop the plans for expansion of this program. General Thrash accompanied me on a visit recently to Europe. The EUCOM commander is very excited with where we have brought this program to today. We visited three of the Eastern bloc nations together. And I can tell you that he will have top priority in partnering with Russia. It is an extremely good program, sir. It is one of these programs that go along with the best form of deterrence that I can see to war, and that is to partner them up with Guard units. It is a very inexpensive way of doing this. And this way, we bring our values, our democratic values, from our States directly from the grassroots of America to these Eastern bloc nations and to these former communist bloc nations.

Senator BUMPERS. I did not know about this until I heard it from General Thrash, but I think it is an excellent idea.

General BACA. Yes, sir.

AMERICAN AND RUSSIAN TROOPS IN BOSNIA

Senator BUMPERS. I understand from General Thrash and other commanders in Bosnia that the relationship between American and Russian troops there, all of which are under United States General Nash, is working out beautifully. And that they have been able, in a 3-day period of time, to work out anticipated problems of nationalistic pride and so on, and get on with the job.

Can you imagine what kind of mail the members sitting here would get if those roles were reversed?

General BACA. Yes, sir.

Senator BUMPERS. We could not get it all answered if we had an American soldier under a Russian general. And yet the Russians not only allow it, they relish it. They themselves are thoroughly enjoying that relationship, and I do not see how it can do anything but foster peace in the future.

Now, let me make one final comment on sort of a macrosubject. And, as I say, part of it is just a statement. But when I think about the Guard, this year you are getting $5.5 billion, which represents 9.3 percent of the Army's request, and 2.2 percent of DOD's budget.

Now, so far as I am concerned, General Baca—and you know my feelings about this—that is the best bargain the entire Pentagon gets. And then I see this battle going on about reducing combat forces, the combat strength of the Guard—now, there was a story in the New York Times on December 26—which incidentally alluded to this restructuring actually is going to wind up being a 50-percent cut in the combat force strength of the Guard.

Well, I hope that story is way off base, but let me just continue. They said that they would anticipate a cut of 50 percent in the 110,000 strength combat forces of the Guard. Now, the GAO says that that figure is 161,000. Who is right, the Times or GAO?

General NAVAS. Sir, I think the GAO and the Times had basically calculated two different—the divisional structure in the Army National Guard, the eight National Guard divisions, is about 117,000. If you add the 15 enhanced brigades——

Senator BUMPERS. It is 117,000?

General NAVAS. Roughly 117,000.

Senator BUMPERS. Well, just before you go any further, General Navas, here is what the GAO said: About 161,000 personnel are to be in 42 combat brigades, including 67,000 in 15 enhanced brigades. Now, the 161,000, it says, are to be in 42 combat brigades. Is that different?

General NAVAS. It is a numbers issue. Let me try to put it in perspective.

Senator BUMPERS. All right.

General NAVAS. We have 8 National Guard divisions and 15 enhanced brigades. If you take the total combat structure in those 8 divisions and 15 brigades, it is roughly about 160,000. And I will have to do the math. If you take only the Guard division, the 8 Guard divisions, it is about 117. So I think that both were right: They were counting different units.

Senator BUMPERS. Well, let me just read you this, and I know you have seen this March GAO report.

General NAVAS. Yes, sir.

Senator BUMPERS. But let me read you their recommendation. And, of course, I am going to be guided by what you all tell me on this. I do not much like it, but if you say it is OK, it is OK with me. It says:

> The end of the cold war and budgetary pressures have provided both the opportunity and the incentive to reassess defense needs. Because the Guard's combat forces exceed projected war requirements, and the Army's analysis indicates a shortage of support forces, we believe it is appropriate for the Army to study the conversion of some Guard combat forces to support roles.

SHORTAGE OF SUPPORT FORCES

Do you agree with that?

General NAVAS. Sir, I need to caveat that. We have designed a national security strategy which the "Bottom-Up Review" looks at four dangers. And it looks at dangers like nuclear proliferation reversal of democratization, regional stability, and basically the economic peace of defense. When you look at one of those pieces only, which is basically the ability to fight two nearly simultaneous major regional contingencies, the "Bottom-Up Review" listed units that did not include the eight National Guard divisions. Those were looked at as a strategic reserve as part of the Nation's war reserve or the strategic reserve for reassurance of a peer competitor down the road. That is what we meant. If the Army Guard's mission is to expand the Army, that is the expandable capability.

Now, looking at the whole force structure available, the combat structure in the Guard earmarked for the two major regional contingencies is the 15 enhanced brigades. And that is why we are applying a lot more resources to them and they are being enhanced. And they are expected to be ready to be brought to bear in a given time.

The eight National Guard divisions, which is roughly 117,000, are there as strategic reserve, and the Army has identified, through its total Army analysis, a shortfall of units in the combat support—artillery, engineers—and the combat service support that are needed for these regional contingencies. And it is a matter of priority. And what division redesign is doing is taking some of that structure that we have in our strategic reserve and moving it forward to a higher-priority unit without destroying the capability of the Guard to maintain combat structure, to maintain divisional structure, as an ability to resurge. And that is very, very difficult, and we are working that, and that is a work in progress that we explained that we are doing within the Army. And, hopefully, it will be briefed to the Secretary and to the Department of Defense pretty soon.

We feel comfortable in the Army National Guard with the division redesign concept, as presented to the Army by the Adjutants General and the Army staff. Because of this, for the first time, it has been a joint effort between the 54 Adjutants General and my office, as a channel of communication with the Army, and if that is accomplished and we do the integration piece, to get that close relationship as close as the Air Force has with its Reserve components, I think that we would be providing a great service to this country of having a capable combat, combat support, and combat service support structure in the Reserve components that is credible. We are not there yet. I am hopeful that we can get there.

General BACA. Sir, and we would come up then with this balanced force that I was just talking about that would include all three: the combat, combat support, and combat service support. And I might say, even after the division redesign, we would still remain a militia nation with a strong militia concept, because we would still retain over one-half of the combat capability in the National Guard.

Senator BUMPERS. Mr. Chairman, I will not abuse the committee by taking additional time. As I say, I have real concerns about this restructuring and where it is going to wind up. And I think we ought to stay right on top of it, because I still think the Guard, and particularly the combat forces, based on all the studies that were done after Desert Storm, is still, by far, the biggest bang for the buck we get. And I know that the Army loves this GAO report. I have never quite understood why, but I have been fighting this battle ever since Harold Brown was Secretary of Defense. When you consider the cost of a full Guard division, as compared to a regular Army division, you look at the studies about how long it takes to put a Guard combat trooper up to tall with a regular Army trooper, it is a very short period of time. When you consider those costs and you look at the budget constraints we are trying to deal with on this committee, I am very apprehensive about where we are headed with this. And I may submit an additional question in writing on this, because I want to know more about it.

Thank you, Mr. Chairman.

Senator STEVENS. I want to put in the record here the summary that has been provided for the National Guard and Reserve equipment acquisition that we funded in the last year. And I want to commend you. We really made, I think, a firm agreement with the House that the moneys for the aircraft would be specifically directed, and the money for your acquisition for equipment in general, the priorities would be established by you. You have done that. And I think we have gone over the list. It is the best way I think to see to it that the extra funds we can find are used by you to meet the shortages in your various units, yours and the Reserve's. So my congratulations.

I will have this printed in the record following the statement, and we will print the responses to the questions that are submitted to you in the record also.

[The information follows:]

FISCAL YEAR 1996 SUMMARY NGREA ACQUISITION REPORT

[Dollars in millions]

Component/Item	Quantity	Cost
SPECIFIED AIRCRAFT PLAN ($400 MILLION)		
Air National Guard—C–130H Aircraft	6	$203.4
Air Force Reserve—C–130H Aircraft	4	135.6
Marine Corps Reserve—CH–53E Helicopter	2	50.0
National Guard—C–26 Aircraft	2	11.0
Specified Aircraft Plan Total	....	400.0
MISCELLANEOUS EQUIPMENT PLAN ($377 MILLION)		
Air National Guard:		
Night Vision Enhancements (internal and external; F–15/F–16 aircraft)	240	14.000
Night Vision Goggles (helmet mounted, passive)	346	2.600
Situational Awareness Data Link (SADL) (F–16/A–10 aircraft)	173	13.000
Electronic Warfare Management System (F–16/A–10 aircraft)	156	12.500
A–10 Unit Training Device (full simulator capability)	4	6.600
F–16 Avionics (Upgraded Data Transfer/Enhanced Fire Control)	146	7.300
F–16 Reconnaissance System	4	1.000
ANG Miscellaneous Equipment Total	....	57.000
Army National Guard:		
M1083 5 Ton Cargo Trucks (FMTV)	83	10.000
M1088 5 Ton Tractor (FMTV)	59	7.150
2½ Ton Extended Service Program (ESP)	180	10.000
AN/PVS–73 Night Vision Goggles (LIN—N05482)	2,179	7.000
40 Ton Medium Transporter Trailers	66	4.950
M113 Family of Vehicles (personnel carriers) plus modifications	1,587	5.000
M917A1 Dump Trucks	44	10.000
Heavy Expanded Mobility Tactical Truck (HEMTT) Fuelers	48	10.400
Contractual Adjustments Safeguard (0.5 percent of total allocation)	....	.500

FISCAL YEAR 1996 SUMMARY NGREA ACQUISITION REPORT—Continued

[Dollars in millions]

Component/Item	Quantity	Cost
EST Basic System	14	1.700
MK–19 (Grenade Launcher) Ammunition	....	.308
M2–MG (50.cal Machine Gun)	56	.632
Mortar Trainer	48	1.200
Night Vision Lens	24	.060
AFIST Trainer	10	1.100
UH–1 (Huey) Helicopter Service Life Extension Program (SLEP)	10	10.000
CH–47D Full Authority Digital Electronic Control (FADEC)	40	8.000
C-NITE Modification Program (AH–1F Cobra Telescopic Site Unit)	....	2.500
AH–1F Boresighting Equipment (Augmentation GSE)	....	4.500
Aviation Reconfigurable Manned Simulators (ARMS)	....	5.000
ARNG Miscellaneous Equipment Total	....	100.000
Air Force Reserve:		
KC–135E Auxiliary Power Units (GTCP85–180L)	7	2.730
F–16 Avionics Upgraded Data Transfer Unit (UDTU)	46	1.150
ALR–69 Radar Warning Receiver (for HC–130 Aircraft)	10	1.300
F–16 Situational Awareness Data Link (SADL)	46	3.450
F–16C/D Electronic Warfare Management System	46	3.700
A–10 Situational Awareness Data Link	32	2.400
IWRS GPS Upgrade (for WC–130 Aircraft)	2	.260
C–130 Night Vision Cockpits	20	2.000
Night Vision Devices (Helmet Mounted Passive Goggles)	106	.810
A–10 Electronic Warfare Management System	32	2.600
HH–60G Integrated Defensive System	25	3.500
MTS–300A Threat Signal Generators (H–60/C–130 Aircraft)	11	1.100
Medical UTC Vehicles (Truck, HMMWV M1097A2)	11	1.320
A–10 Unit Training Device (full simulator capability)	4	6.600
F–16 Multi-Task Trainer Visual Systems	6	3.000
CCTV Flightline Enhancement	12	2.090
C–130 Unit Training Device Visual System	1	2.000
USAFR Miscellaneous Equipment Total	....	40.000
Navy Reserve:		
MIUW Radar, Sonar Surveillance Center (RSSC) Van Upgrades	1	6.400
F/A–18A Aircraft Upgrades (Avionics to Block 12 Configuration)	12	22.000
C–9 Avionics Upgrades	....	1.200
Video Teletraining System	....	5.000
Mobile Diving and Salvage Unit (MDSU) Equipment	....	.800
Expeditionary Forces Table of Allowances (TOA) Equipment	....	4.600
USNR Miscellaneous Equipment Total	....	40.000
Army Reserve:		
Heavy Expanded Mobility Tactical Truck (HEMTT) Wreckers	12	3.138
M1000 Heavy Equipment Transporter (HET) Trailers	21	3.900
2½ Ton Extended Service Program (ESP)	300	15.560
M917A1 Dump Trucks	45	9.000
HEMTT Bridge Transporters	100	8.500
HMMWV Contact Maintenance Trucks	40	3.480
Reverse Osmosis Water Purification Units (ROWPU) 3000 GPH	15	4.275
Floodlight, Trailer Mounted	300	8.287
Compactor, High Speed	26	3.510

FISCAL YEAR 1996 SUMMARY NGREA ACQUISITION REPORT—Continued

[Dollars in millions]

Component/Item	Quantity	Cost
Crane, All Terrain, 22 Ton	15	3.450
Hydraulic Excavator	15	6.325
Forklift, All Terrain, 10K	42	4.200
MK 19, MG Grenade M40	125	2.000
SINCGARS Radios	275	4.400
Night Vision (AN/PVS–7B)	333	.999
Barge Derrick 115 Ton	1	5.160
Fuel Supply System	26	.806
Laser Leveling System	29	1.015
Medical Equipment	....	1.000
Automatic Building Machine Upgrades	....	1.000
USAR Miscellaneous Equipment Total	....	90.000
Marine Corps Reserve:		
CH–53E Procurement (Funding Augment)	....	6.000
Maintenance Battalion Equipment (Various)	4	.093
UH–1N NAVFLIRS Upgrade	6	5.100
Communication Equipment (Various)	1,325	8.502
AN/ALQ–126B F/A–18 Deceptive Electronic Countermeasures	2	2.000
Landing SPT Battalion Equipment (Various)	....	.579
M1A1 Tank Ancillary Equipment (Various)	....	3.820
Logistics Upgrade (LOGMARS Hardware)	2	.186
Diver Safety Communications Devices	6	.018
Scuba Pro Model Personal Sonar Devices	180	.005
Intelligence Analysis System (IAS) Suites	16	1.800
Joint Deployment Intelligence System (JDIS)	5	.250
Power Supply Converters	618	1.236
Weapons Direction Units (WDU)	120	3.600
ISO Truck Beds	1,062	2.370
Tactical Petroleum Labs, Medium	4	.860
Water Purification Units	13	.507
Power Equipment (Generators)	390	5.100
Environmental Control Equipment	197	1.182
Tank Weapons Gunnery Simulation System (TWGSS)	23	1.755
Precision Gunnery System	30	2.442
General Purpose Electronic Test Equipment (GPETE)	....	1.011
Environmental Control Unit/Prime Power Unit for Avenger	66	1.584
USMCR Miscellaneous Equipment Total	....	50.000
Miscellaneous Equipment Plan Summary:		
Component:		
Air National Guard	....	57.0
Army National Guard	....	100.0
U.S. Air Force Reserve	....	40.0
U.S. Naval Reserve	....	40.0
U.S. Army Reserve	....	90.0
U.S. Marine Corps Reserve	....	50.0
Miscellaneous Equipment Total	....	377.0

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. We do have some other questions that have been submitted by Senators, and I have some that I was going to ask further details that I indicated I would like you to respond to on the record. We will submit them to you, gentlemen.

[The following questions were not asked at the hearing, but were submitted to the bureaus for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO LT. GEN. EDWARD D. BACA

QUESTION SUBMITTED BY SENATOR TED STEVENS

OVERALL BENEFITS TO THE GUARD AND IMPACTED COMMUNITIES

Question. What are the overall benefits to the Guard and the impacted communities of expanding distance learning throughout the Guard?

Answer. If necessary funding is appropriated, the National Guard Bureau (NGB), in collaboration with the Defense Information System Agency (DISA), and the Chief, U.S. Army Reserve (OCAR), would be able to bring a minimum of 150 high technology classroom suites to all states and territories. This endeavor would make readiness enhancement venues available to an enormous slice of our force structure, while concurrently providing the communities we serve with access to a wide array of information gathering and educational instruction media. As the network grows, even more geographically dispersed locations within our states and territories will have the opportunity to be connected to the information highway. When successfully implemented, this program will establish a distance learning fabric covering all states and territories. The objective of linking our communities via this National Guard initiative is a high priority for the NGB.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

ARMORIES

Question. Would you please state the Guard's position and plan for its Armory system and what do you require to make it healthy once again?

Answer. The Army National Guard fiscal year 1997 budget request is $14.3 million for authorization and $7.6 million for appropriation. The request for authorization contains two projects, of which one project is a Army Aviation Support Facility/Armory Complex Expansion, Bismarck, ND, for $3.65 million. This project requires an armory due to the aviation facility expansion.

The Army National Guard Long Range Construction Plan (LRCP) consists of those facilities, including armories, which the States have considered the most critical requirements from the total 3,100 armory plant inventory. Of the total armory inventory, about 1,400 Armories at an estimated cost of $5.5 billion are inadequate. Of those, 404 of the most inadequate are identified on the LRCP for renovation or replacement, at a cost of $950 million.

The Guard plant replacement goal for facilities is 1.75 percent of Plant Replacement Value per year which means renovation or replacement about every 57 years. This renovation or replacement would require approximately $100 million per year for armories. However, higher priorities for near-term readiness requirements have constrained military construction resources to only the most critical projects.

The Guard Future Year Defense Plan (FYDP) currently identifies 12 armories valued at $25 million. Execution and planning beyond the FYDP depends upon the priorities for resources.

RESERVE COMPONENT AUTOMATION SYSTEM [RCAS]

Question. LTG Baca, what is the current status of the RCAS program?

Answer. The RCAS program was restructured in fiscal year 1995 to constrain cost growth, establish a realistic requirements baseline, and to leverage new information management technology. The restructured program maximized user participation to meet user needs in the most cost effective manner. The modified contract was signed 31 January 1996.

The restructured RCAS solution will undergo formal test and evaluation during 3d quarter fiscal year 1996, including operational testing to be performed at Operational Integration Sites at the Iowa Army National Guard (ARNG) and the U.S.

Army Reserve (USAR) 99th Regional Support Command. The results will support the infrastructure fielding decision from the Major Automated Information Systems Review Council (MAISRC) in 4th Qtr fiscal year 1996.

In the next three years we will complete the fielding of all ARNG and USAR hubs, field 18 ARNG states and territories, 25 USAR commands, and other selected organizations.

With the removal of the restrictions on the use of government furnished equipment in the fiscal year 1996 Defense Appropriations Conference Language, the restructured program can go forward as planned and briefed.

The current life-cycle cost estimate for the restructured program is $2.6 billion for the years fiscal year 1996–2007. The Army fully supports this program.

PROCUREMENT BUDGET DISCUSSION

Question. Lieutenant General Baca, not that we would ever let this happen, but what would you do if the committee honored the President's and Secretary of Defense's request and zeroed your procurement budget?

Answer. The absence of the Dedicated Procurement Program (DPP) would eliminate the Army National Guard's (ARNG) ability to procure equipment that improves the readiness of high priority units, under the first to fight concept. With funding the way it is, the ARNG's ability to directly influence procurement of items most critical for readiness would be severely impaired. Due to intensive management of Congressionally provided DPP and application of these funds to high payback readiness shortfalls, the ARNG is currently more compatible with our AC counterpart than at any previous time. The ARNG has used funding from DPP to procure specific equipment shortfalls in high priority units such as the Single Channel Ground and Airborne Radio System (SINCGARS), Heavy Equipment Transporters (HET), Armored Combat Earthmover (ACE), Night Vision Equipment, Integrated Family of Test Equipment, CH47D, OH58D, 2.5 Ton Trucks, and 5 Ton Trucks. The ARNG continues to assess critical equipment shortages and modernization requirements each year, which are coordinated with DA and OSD prior to release of requirements to Congress.

QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

ARMY GUARD MEDICAL FORCE STRUCTURE

Question. I have received word that the 159th Army Surgical Hospital is scheduled to be taken out of the Force Structure in fiscal year 1997 and that this action is not due to downsizing but rather due to reorganization. Can you explain to me why a unit that is fully ready and capable, as they demonstrated during their recall to active duty during Desert Shield/Desert Storm, is being reorganized out of existence? What do you plan to do to maintain medical readiness in my region of the country? I am concerned about recent changes in overall Guard and Reserve force structure related to medical units. Please explain your intentions regarding overall medical community management. Please provide a table listing the number of health care professionals by Approximation, breakout by Doctors, Nurses, Other.

Answer. As a result of Total Army Analysis 2001 and 2003, all Mobile Army Surgical Hospital (MASH) units are to be inactivated. Some will inactivate in fiscal year 1997 and the balance will inactivate in fiscal year 1998. To ensure that medical support is maintained, companies from Area Support Medical Battalions will be located in various regions of the country. Also, State Area Command (STARC) medical units have been established. Both of these types of units will provide level 1 and 2 (on the scene) medical care which is ideal for responding to state contingencies.

ARMY GUARD DIVISION REDESIGN

Question. As I listen to the testimony of the witnesses, I hear how many days of support the Guard and Reserve are providing to the Active Force both CONUS and overseas performing contingency/peacekeeping operations. My question is what affect this change in mission is having on Guard and Reserve Readiness? I am concerned that contingency/peacekeeping is not maintaining or improving their war fighting skills.

Answer. Mobilization and deployment of Army National Guard units to contingency operations has significant impacts on unit readiness. These units, when deployed to support the Active force both CONUS and overseas are able to perform specific missions related to their warfighting requirements. Performing those missions under real world conditions enhances overall unit proficiency.

Question. There has been some discussion about changing the Army Guard and Reserve from Combat to Combat Support. I have two questions about this, first; what do you think about this change in mission? Secondly, it appears that we are drawing down the guard and reserve at a faster rate than the active force and we are cutting force structure before we have defined their new mission, can you explain what are the Army's intentions?

Answer. The ARNG proposal that has been accepted by the Army as its official position converts up to 11 of its combat maneuver brigades, two division headquarters with partial elements and one scout group into units with CS/CSS missions. The new unit designations will include units such as: transportation, field artillery, signal, air defense artillery, petroleum supply and liaison activities designed to help the command and control of major units in a theater of operations. This integration will result in a more capable, affordable force to meet America's defense needs. The schedule for these conversions is resource dependent and has not been determined. It has not been determined which units will be affected. The intent of the Army National Guard is to retain a balanced force.

QUESTION SUBMITTED BY SENATOR PATRICK J. LEAHY

STARBASE

Question. Finally, there is one program that I want to highlight called the STARBASE program. This is a very small program that is run by the Guard, and encourages elementary school students to pursue careers in science and technology. I wonder, General, if you could just take a minute to explain to the subcommittee a little about STARBASE, because I have heard from dozens of young Vermonters about it.

Answer. STARBASE (Science and Technology Academies Reinforcing Basic Aviation and Space Exploration) a program for youth ages 6 through 18, is aimed at improving math and science skills through "hands on" learning. The program starts at the elementary school level in order to attract and prepare students at an early age for careers in engineering and other science-related fields. Currently the STARBASE program is conducted in 14 states and territories. They are California, Florida, Iowa, Kansas, Michigan, Minnesota, North Carolina, Oklahoma, Oregon, Puerto Rico, South Dakota, Texas, Vermont and Wyoming.

QUESTIONS SUBMITTED TO MAJ. GEN. WILLIAM A. NAVAS

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

MILITARY TECHNICIAN FUNDING AND END STRENGTH

Question. Are you satisfied that the 1997 Budget provides sufficient military technician funding and end strength, consistent with programmed force structure levels?

Answer. I am satisfied that the 1997 Budget provides funding for 25,500 military technicians under the current cost assumptions used by Army civilian costing models. That number is sufficient to support the force under the tiered readiness programs with which the Army National Guard must work.

STATUS OF THE DISTANCE LEARNING INITIATIVE

Question. What is the status of the distance learning initiative that this subcommittee funded for the past two years?

Answer. Fiscal year 1995 Congressional funding will implement nine classroom suites throughout the demonstration area of MD, PA, WV, VA, and the District of Columbia. These sites were coordinated by the Adjutants General of each state and are being provisioned at this time. Fiscal year 1996 funding is expected to add additional sites to the demonstration area, plus expand the program to locations in DE, FL, SC, MS, AK, AR, and CA. Expansion of this significant program in fiscal year 1996, however, has been hampered by the inclusion of $5.8 million of appropriated OPA funds in the OSD rescission list. Should those funds be restored in a timely fashion, the National Guard Bureau will be able to continue the initiative. If fiscal year 1997 funding is approved, the distance learning technology endeavor will place at least 150 high technology classroom suites throughout the remaining states and territories.

DISTANCE LEARNING IN ALASKA

Question. How can distance learning be used in Alaska to cut travel time and costs? What is the plan to field this there?

Answer. Distance learning facilities are being planned to provide training opportunities to soldiers within 60 minutes/60 miles of their homes. This will afford them the opportunity to receive required training in a shorter timeframe than is currently available in the Army schools system. This will allow for the overall reduction in costs associated with the training such as travel, lodging and meals. While distance learning facilities may not be in every location within the large expanse of the state of Alaska, improved training opportunities will exist. The training facility sites will be based upon current demographics analysis and the physical characteristics of the region. Fiscal year 1996 expansion of the program includes Alaska. That expansion, however, is currently stalled due to the inclusion of fiscal year 1996 procurement funding to the rescission list. Should the funding be restored, the NGB is prepared to execute further expansion of the project.

DIFFERENCES BETWEEN AGR AND CIVILIAN TECH PROGRAMS

Question. What are the major differences between the AGR and civilian technician programs?

Answer. The objective of the Full Time Support Program (AGR and Technician) is to improve the readiness and mobilization/deployment planning and preparation of the National Guard. Both AGR's and military technicians are available to deploy with their unit of assignment. However, there are differences between the AGR and Technician programs.

Employment.—The majority of AGR soldiers are assigned to TOE units. The majority of technicians are employed in central locations, providing maintenance and supply for units but are not necessarily assigned to units.

Duties.—AGR's are assigned to organize, administer, recruit and retain, instruct and train the National Guard. Technicians are employed to provide administration, training, and maintenance support.

Unit of Assignment.—AGR's work full time in a single unit to which they are assigned to militarily. A technician is assigned to a maintenance facility or administrative area that may routinely provide support to several different units.

Pay/Benefits.—AGR soldiers are on full time National Guard duty and are afforded all the pay/benefits of their active duty counterparts. Technicians (Federal civilian employees) are under the same programs as civil service for pay and benefits.

DEPLOYABILITY

Question. What are the differences in deployability between an AGR and a Civilian Technician?

Answer. There are no differences in the deployability criteria for AGR and Civilian Technicians as outlined in the Army Mobilization and Operations Planning and Execution System.

TWO SEPARATE PERSONNEL SYSTEMS

Question. Does having two separate personnel systems (AGR and civilian technician) for units to administer, cause confusion?

Answer. No. Both the Active Guard Reserve (AGR) program and the Technician program are centrally managed in each state by the National Guard Human Resource Office. The majority of AGR soldiers are assigned to TOE units. Military Technicians are employed in support areas, at centralized locations, providing maintenance for equipment and supplies required to support unit missions. The two programs are distinct and do not cause confusion.

ROLES OF AGR AND CIVILIAN TECHNICIANS

Question. What roles do AGR's and civilian technicians perform in the guard and reserve? Has this changed since the AGR program was created?

Answer. AGR soldiers are on full time National Guard duty assigned to support the National Guard in organizing, administering, recruiting and retaining, instructing and training the National Guard force. The majority of AGR soldiers are assigned to TOE units.

Military technicians are Federal civilian employees providing full time support for administration, training, and maintenance in the National Guard. Military technicians must maintain their status as drilling members, with military specialties compatible to their civilian positions in the National Guard, as a condition of employment (dual status). The majority of our military technicians are employed in Organizational Maintenance Shops, Combined Support Maintenance Shops and Army Aviation Support Facilities.

The roles of AGR's and military technicians have not changed after the AGR program became established. Their sole focus is to improve readiness of the National Guard in the most cost effective manner.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

DEPLOYABILITY

Question. If Desert Storm were to reoccur today, how many Army Guard and Reserve combat units could deploy in 30 days? 60 days? 90 days?

How many combat support units could deploy in 30 days?

How many combat service support units could deploy in 30 days?

Answer. In an unconstrained call-up, based on current readiness data and deployment criteria established in the Army Mobilization and Operations Planning and Execution System, the ARNG can deploy combat/combat support/combat service support units as follows:

Category	30 days	60 days	90 days
Number combat units	100	277	13
Number combat support units	120		
Number combat service support units	248		

DOWNSIZING OF THE RESERVE COMPONENTS

Question. If there is a decision to re-orient the missions of the Army Reserve and Guard units and/or to downsize the Guard and Reserves, what type of units are most likely to be affected? Where are these units located? What would the schedule be?

Answer. The ARNG proposal that has been accepted by the Army as its official position converts up to 11 of its combat maneuver brigades, two division headquarters with partial elements and one scout group into units with CS/CSS missions. The new unit designations will include units such as: transportation, field artillery, signal, air defense artillery, petroleum supply and liaison activities designed to help the command and control of major units in a theater of operations. This integration will result in a more capable, affordable force to meet America's defense needs. The schedule for these conversions is resource dependent and has not been determined. It has not been determined which units will be affected. The intent of the Army National Guard is to retain a balanced force.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

HEAVY EQUIPMENT TRANSPORTER SYSTEM [HETS]

Question. General Navas, last year the head of the Army Guard, informed this committee that the National Guard intended to purchase the Heavy Equipment Transporter System (HETS) in fiscal year 1996 that appears not to be the case. Previously, the Guard commenced a procurement plan to meet your own stated requirement for 270 systems but it has apparently stopped at 44 HETS. Now we in the committee believed that the earmarking of equipment for the National Guard is inappropriate, but would be interested in what the Guard's commitment is to overcoming this shortfall and fulfill this requirement. To what extent are you coordinating with the active Army in order to take advantage of the economies of the scale of their options?

Answer. The Army National Guard (ARNG) received limited funds in fiscal year 1996 for new equipment purchases and could not procure all critical shortage items. HETS continue to be identified as a shortage item on the ARNG's Dedicated Procurement Program (DPP) list. The ARNG is committed to obtaining HETS when funding is available to fulfill our requirements. The ARNG programmed DPP funds in fiscal year 1991 and in fiscal year 1992 to buy a total of 80 HETS and the Army projects an additional 176 to be obtained for the ARNG in fiscal year 1997. In accessing current shortage and modernization requirements, the ARNG will require over 200 additional HETS. The Army National Guard continuously works with the Department of the Army staff in all equipment modernization efforts. In addition, the ARNG has liaison officers assigned to the Tank and Automotive Command working with the program managers to assist the Army in meeting its equipping challenges.

BRADLEY FIRE SUPPORT VEHICLE

Question. What are the Guard's intentions in regards to Fire Support and have you initiated any action to get involved with the Bradley Fire Support Vehicle (BFIST)?

Answer. The Army National Guard (ARNG) intends to modernize its forces with their Active Army counterparts, to include fire support. To date, the Active Army has not placed any ARNG Field Artillery units on a BFIST distribution plan. The Army wide shortage of Bradley hulls eliminates the possibility of using Dedicated Procurement Program (DPP) to purchase BFIST for the ARNG. The ARNG is committed to modernizing its aging Fire Support Vehicle (FISTV) fleet, which is built on the M113 chassis. The only alternative that the ARNG has researched to date is the HUMMV Fire Support Vehicle (HUMMV-FIST). There has been no determination whether the HUMMV-FIST is a viable alternative for mechanized forces.

TIERED FORCE STRUCTURE

Question. General Navas, I understand that you have tiered your force structure in order to provide a higher level of funding to those units considered to be the "First to Fight." What percentage of your force which has been mobilized since "Desert Storm" have come from these "First to Fight" soldiers?

Answer. The question covers Operations Restore Hope (Somalia), Uphold Democracy (Haiti) and Joint Endeavor (Bosnia). Tiering of the force was initiated in October, 1994. Although deployment of Army National Guard soldiers for Operation Restore Hope occurred December, 1993 through March, 1994 (prior to the start of tiering), the same rules were uniformly applied to derive the data below for all three operations. The ARNG considers its First-to-Fight population to be those units in the first two of the five tiers.

[In percent]

Category	Restore Hope		Uphold Democracy		Joint Endeavor	
	Soldiers	Mandays	Soldiers	Mandays	Soldiers	Mandays
First-to-Fight	....	....	43.4	52.8	3.9	3.9
Non First-to-Fight	100.0	100.0	56.6	47.2	96.1	96.1

EFFECTS OF PBD 854

Question. What could be the effect of PBD 854 (Operational Support aircraft (OSA) reduction from 126 to 74 cuts personnel end strength funding) be on your Guard units?

Answer. The personnel reductions in PBD 854 break the RC Leaders' Offsite Agreement. However, the effect of PBD 854 reductions on Guard units meeting their federal missions is minimal; only the Operational Support Airlift Command (OSACOM), also Guard unit, is affected. OSACOM is separately resourced from the Army National Guard units; it is so resourced because OSACOM supports a Total Army mission, not just Guard units.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

UTILITY MODERNIZATION

Question. I have become concerned in recent months about the state of the Army Guard's utility helicopter force. I say that because the last time I flew in one of my state's Hueys, the helicopter, complete with patched over bullet holes from Vietnam, was older than the young lieutenant flying it. We can get a lot out of our equipment, and we should. But I understand that at the current rate of modernization, it will take 50 years to replace the Guard's Hueys with the modern Blackhawk. Is that true, General?

Answer. At the current rate of modernization, there will be a permanent shortfall of ARNG modernized utility helicopters. The ARNG requires 1,042 utility helicopters. By the end of the current multi-year buy in fiscal year 1996, there will be a shortfall of 573 UH–60 Blackhawks. If the Army's procurement strategy of 36

Blackhawks per year during fiscal year 1997 through fiscal year 2001 remains valid, there will be a permanent shortfall of 393 Blackhawks after fiscal year 2001. If the Army continues to procure UH–60 Blackhawks at 36 per year after fiscal year 2001, the ARNG would meet the utility helicopter requirement in fiscal year 2013.

DEPLOYABILITY

Question. General Navas, during the 1993 Bottom Up Review, 15 so-called Enhanced Brigades were slated to receive better training and equipment with the expectation that these brigades would be able to deploy to a major conflict within 90 days of being called up. Where does the readiness of these units stand three years after their creation?

Answer. In April 1994, the Army Leadership designated 15 combat maneuver brigades as Enhanced Brigades (E-BDE's). These include seven heavy brigades, seven infantry brigades, and one armored cavalry regiment. At that time, these brigades were organized under different designs and were at various levels of modernization and readiness. Fiscal year 1999 endstate enhanced readiness goals were established for these units.

HQDA, TRADOC and the ARNG developed standardized combat organizational structures for these brigades. The ARNG created authorization documents based on these designs, which apply overstructure of personnel and modernized equipment. Conversion to these new documents began in 1995 with completion projected for 1996.

Coordination with HQDA to increase the priority of all E-BDE's continues. This will ensure that E-BDE's are better able to compete for resources. The process should be completed by 1 September 1996.

The NGB coordinated with U.S. Army Forces Command to develop an enhanced pre-mobilization training strategy which ensures the ability to deploy at C–1/C–2 in less than 90 days. The strategy is published as Annex H, FORSCOM/ARNG Regulation 350–2.

A strategy to ramp the brigades up to the endstate readiness goals was developed to overcome the constrained fiscal environment and multiple start points for readiness. Currently 11 Brigades meet deployability standards, and four have received a special reporting authority status because of the significant HQDA directed force structure changes.

Two are expected to meet the more stringent Enhanced Brigade Readiness Goals by the end of fiscal year 1996. All will meet the top readiness standards in Personnel, Equipment On Hand, and Equipment Readiness; and will meet the minimum essential readiness standards in Training by the end of fiscal year 1999.

Question. General Navas, is there a mechanism for you to evaluate which brigades are designated “enhanced”, and have you thought of changing those designations to put your most combat ready units in the earliest deploying units?

Answer. When the Department of the Army (HQDA) designated the 15 Enhanced Brigades (E-BDE's) in April 1994, fiscal year 1999 readiness goals were established for each of the enhanced brigades to allow management by objective. The Army Leadership fully considered the E-BDE's varying levels of readiness and modernization. Implications suggest that modernizing these brigades for the sake of long term combat effectiveness may cause some short term reduced readiness. Those brigades selected were evaluated as having the best potential for meeting the established Enhanced Brigade objectives by fiscal year 1999.

During this modernization process, the National Guard Bureau (NGB) and HQDA are constantly monitoring readiness of these brigades against interim goals. Additional personnel, resources and modernization equipment are being directed to the E-BDE's. Video Tele-Conferences are conducted between the NGB Army Directorate, the Brigade Commanders, and the states to resolve readiness issues.

At this time, there are no brigades under consideration for removal from the E-BDE list. Redirecting these resources during the evaluation period would severely undermine the attainment of readiness objectives and goals. NGB would stringently evaluate any options prior to forwarding to Army Leadership. Any decision to change units or reallocate resources would involve evaluation at the highest levels of Army leadership.

QUESTIONS SUBMITTED TO MAJ. GEN. DONALD W. SHEPPERD

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

MILITARY TECHNICIAN REDUCTIONS

Question. General Shepperd, can you briefly discuss the impact of military technician reductions on the Air National Guard?

Answer. Any non-programmatic reduction to the Air National Guard military technician force impacts readiness. Technicians comprise seventy-five percent of the Air National Guard's full-time manning. Technicians are civilians in name only who actually perform military operations, maintenance, and scheduling functions in support of aircraft and missions. The technician force not only trains drill members but represents the immediate deployment capability of units and forms the core of volunteers supporting worldwide deployments.

The ANG is a fully integrated component of the USAF. Readiness is measured by using the same Active Air Force indicators to track and evaluate readiness. Current indicators show that the ANG is a ready force. If non-programmatic reduction were to occur, unit experience and functional levels will be affected.

AGR AND CIVILIAN TECHNICIAN PROGRAMS

Question. What are the major differences between the AGR and civilian technician programs?

Answer. The major differences between the AGR and military technician programs relate to pay, entitlements, and benefits. AGR personnel are RC members who are ordered to active duty or full-time National Guard duty under Title 10 USC 672(d) or Title 32 USC 502(f); however, they are under the control of the governor of the respective state or territory. AGR personnel receive the same pay, entitlements and benefits as their regular active duty counterparts. ANG Military Technicians (MT) are federal civilian employees, hired under Title 32 USC, and maintain "dual status" as drilling RC military members in the same unit they support as a condition of employment. They receive military pay, entitlements, and benefits only when placed on active duty orders or during inactive duty training periods.

Question. What are the differences in deployability between an AGR and a civilian technician?

Answer. Deployability of AGR and Military Technicians (MT's) are the same when either is involuntarily mobilized, in-place or deployed, for a contingency/emergency operation.

The only time that their deployability will differ is when either is mobilized voluntarily. During a voluntary mobilization, an AGR will automatically convert to Title 10 status once he/she is deployed. However, when a MT is deployed for an operational mission, specific orders must be published to change his/her status to Title 10. MT's may perform regular temporary duty in either technician or Title 10 status, but they are restricted by law from participating in an operational mission as a technician.

Question. Does having two separate personnel systems (AGR and civilian technician) for units to administer cause confusion?

Answer. Yes, it does. The main concerns deal with perceived pay disparity, leave administration and medical benefits. However, supervisors are provided sufficient training to administer the appropriate programs fairly to the mixed work force.

Question. What roles do AGR's and civilian technicians perform in the Reserve? Has this changed since the AGR program was created?

Answer. AGR and full-time military technicians are responsible for keeping the Air National Guard (ANG) in a constant state of readiness. Typical functions include recruiting and retaining, aircraft maintenance, civil engineering, instructing, operations, and training for wartime contingencies.

Although the AGR's role had remained virtually unchanged, the ANG's increased commitment to worldwide contingencies has greatly increased their importance. Because the AGR is considered an active duty member, he/she can be more easily deployed than the military technician. AGR's automatically convert to Title 10 status, however, military technicians must be placed on active duty orders to change their status.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

PAA

Question. General Shepperd, as the regular forces continue their tailslide, there is almost a unanimous belief that the N.G. and Reserves will pick up a greater and greater load. There is also a belief that the aviation units of the N.G. and Reserve will experience an increase in personnel and assets in the near future in order to accomplish this greater mission load. Even with this realization, the administration continues to nickel and dime the Air Guard and lower the Primary Aircraft Authorized for its units. Why has the Air Guard reduced the PAA for its fighter units from 15 to 12 when you have been funded and authorized to maintain a 15 PAA force structure? Why are you reducing the 12 PAA for C–130 units to 10 at five locations? What would it take to insure the Air Guard maintain an adequate Primary Aircraft Authorized (PAA) level for all its units?

Answer. Congress restored appropriate funding and strength authorizations to restore ANG F–16 general purpose (GP) fighter units to 15 PAA for fiscal year 1996. The Department of Defense established that Air National Guard GP F–16 fighter units be equipped at 12 PAA in fiscal year 1997.

The Air Force's Military Requirement Study (MRS) determined that 388 C–130's were required to support the National Military Strategy of the United States. The Air Guard is downsizing its C–130 units from 12 PAA to 10 PAA as an initial step to comply with the MRS.

The ANG would require $68 million in fiscal year 1997 to restore all aircraft to the fiscal year 1996 appropriated levels. The Operations and Maintenance Account (3840) would require $57.5 million and the Military Personnel Account (3850) would require $10.5 million.

Question. What could be the effect of PBD 854 (Operations Support Aircraft) (OSA) reduction from 126 to 74 cuts (personnel end strength funding) on your Guard units?

Answer. PBD 854 reduced the ANG OSA fleet by 12 aircraft, including 38 full time manpower positions (11 officer and 27 enlisted) in fiscal year 1997 with greater reductions programmed in future years. PBD 426 added most of the fulltime manpower back and further changed the reductions from full time to drill. Final Guard losses are expected to be 83 personnel (22 drill officers, 52 drill enlisted, and 9 technicians). PBD 854 also directed implementation of the JCS recommendation to consolidate OSA scheduling under USTRANSCOM. The ultimate impact is that up to 12 ANG OSA aircraft will be retired and all ANG units will have to request OSA support through USTRANSCOM.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

F–16 CUTS

Question. General Shepperd, I have been concerned in recent years about the force structure in the Air Guard fighter force. Some years ago there were 24 fighters in each unit. Then that number got cut to 18 per unit, and then 15 per unit. For the past two years there have been proposals to cut the fighter force down to 12 aircraft per unit, but this subcommittee has directed the Air Force to keep all F–16 fighter units flying at 15 aircraft each. General Shepperd, why does the budget support only 12 aircraft? Does this make sense when F–16's are deploying more than ever before in support of their active counterparts?

Answer. In order to balance modernization and readiness and comply with the provisions of the Bottom-Up Review (BUR), the Department of Defense established that Air National Guard general purpose F–16 fighter units be equipped at 12 PAA in fiscal year 1997.

It is easier and more cost effective to support contingency deployments with 15/18/24 PAA units than with 12 PAA units because the increased manpower authorizations in larger units provide a larger pool of traditional Guard personnel to volunteer and the airlift requirements are reduced. Force structure, however, is based on supporting the security requirements of the United States and the strategy developed to satisfy those requirements. Force structure is not based on supporting contingency operations, which is what is driving the current operational tempo. Implementing the 1997 PB would increase the number of deployable GP units from 21 to 26, all equipped with more modern F–16 aircraft. Although 12 PAA is not optimum, the Air Guard would still be able support the active component by combining personnel and aircraft from two or more units.

Question. General, what happens when a 12 plane unit has 4 planes on a deployment, a couple in scheduled maintenance, a couple broken, and you have to conduct your regular unit training? What happens to a unit in that situation?

Answer. Units are equipped with additional aircraft, known as Backup Aircraft Inventory (BAI), and in some cases Attrition Reserve aircraft, in addition to their complement of Primary Aircraft Authorized (PAA). The additional aircraft are provided to ensure PAA are available for training and deployments. When units deploy, meeting regular training requirements can be difficult, especially if aircraft at home station are non-mission capable. Not only are there fewer aircraft available to fly, there are fewer maintenance personnel available at home to repair aircraft and generate mission capable aircraft for training missions.

SUBCOMMITTEE RECESS

Senator STEVENS. Thank you very much for your courtesy, gentlemen. It is nice to see you again. And we congratulate you on the job you are doing. We just want to make sure we have the ability to keep it up. Thank you.

[Whereupon, at 12:20 p.m., Wednesday, May 1, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, MAY 8, 1996

U.S. Senate,
Subcommittee of the Committee on Appropriations,
Washington, DC.

The subcommittee met at 9:37 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Shelby, Inouye, and Lautenberg.

DEPARTMENT OF DEFENSE

Environmental Issues

STATEMENT OF HON. ROBERT M. WALKER, ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS, LOGISTICS, AND ENVIRONMENT)

OPENING STATEMENT OF HON. DANIEL K. INOUYE

Senator Inouye [presiding]. At the request of the chairman, who is unfortunately caught in the traffic like all of us, I would like to call the hearing to order.

Secretary Walker, Secretary Kandaras, Secretary Coleman, I am certain the chairman joins me in welcoming all of you to the hearing this morning.

In this era of fiscal responsibility, we on the Appropriations Committee and you as managers of limited fiscal resources face many challenges in prioritizing and determining what is best for our country. We can all agree that the defense and protection of our Nation is paramount, but we have also found that essential to the security and health of our Nation is the preservation of our natural environment.

This morning, we would like to discuss with you how best to manage our commitment to the environmental concerns for which the Department of Defense is responsible. We are particularly interested in hearing your views and involving the community in our restoration efforts in the status of contracting by region, on the successes of the Legacy Program, and many other equally important issues, so I look forward to hearing your candid views on these and other concerns.

If I may at this time, I would like to call upon the Assistant Secretary of the Army for Installations, Logistics, and Environment, the Honorable Robert Walker.

CLEANUP

Mr. WALKER. Thank you very much, Mr. Chairman. I appreciate the opportunity to again appear before the committee and discuss the Army's environmental program.

Mr. Chairman, the Army's environmental program is an essential element of our military mission. As a land-based force, we understand the connection between good environmental stewardship and the ability to train in the future. We have only so much land to train on, so the Army environmental program is an investment in the future readiness of the Army.

Mr. Chairman, the request before the committee is for $1.4 billion for the Army environmental program. This is a reduction of about $200 million from the level appropriated last year. We may be appropriating less money, but we are spending what we have more efficiently. Our request may be smaller, but our commitment to the environment has not diminished.

For instance, 4 years ago the Army was spending only about 39 percent of every cleanup dollar on actual cleanup. The rest was for studies and consultants. Well, that was unacceptable, so we have turned that ratio around, and our cleanup goal in fiscal year 1997 is to spend 65 percent of our cleanup dollars on cleanup.

Mr. Chairman, we are taking seriously the President's policy to bring common sense, innovative approaches, and better business practices to our environmental programs, and we have listened very carefully to the suggestions of the Defense Subcommittee as well, and we are taking your suggestions to heart. We are doing more to make the environmental program in the Army more responsive, more efficient, and more innovative, and with the indulgence of the committee I would give you a few examples.

Last year, we had the very first Federal—not just DOD, but the very first Federal facility ever removed from the Superfund list. That facility was landfill No. 5 at Fort Lewis, WA, and here is how we did it.

After studying the site, we determined that a cap and monitoring system would be sufficient for providing protection, and after subsequent monitoring showed that no further action was warranted, we asked EPA and the State of Washington to agree that additional, more costly action would not be necessary at the site.

Mr. Chairman, I would add that we are planning this year to ask EPA to delist the first entire installation from the Superfund list, and Senator Inouye, I am happy to say that that installation is in the State of Hawaii. It will be Schofield Barracks.

Frankly, we are able to achieve these delistings because the regulators have found that they can have confidence in the Army's environmental program, and we are striving to keep that confidence.

In another area, one of our most unique cleanups last year utilized natural attenuation. Natural attenuation is really very simple. Contaminants are allowed to be reduced through natural biological processes, and there are instances where that can happen.

Last year, we signed the very first Department of Defense natural attenuation record of decision at Sierra Army Depot in California. The selection of natural attenuation at Sierra avoids the high cost of traditional pump and treat systems, which would add another $10 million over the life of the cleanup.

I do not want to mislead the committee. Natural attenuation does cost something. We do not just let it happen. We must set in place an appropriate monitoring system to ensure that the natural processes are, indeed, working.

So, Mr. Chairman, we have determined that we should try to use natural attenuation wherever we can. Because we know that it can help us avoid millions in unnecessary treatment cost and still permit us to achieve our cleanup goals. So, with the success at Sierra we will evaluate the feasibility of natural attenuation at all sites which are undergoing remedy selection.

Mr. Chairman, I would mention another innovative approach which happens to be in my home State of Tennessee. By using phytoremediation to biologically neutralize explosive residuals at the Milan Army Ammunition Plant, we stand to save approximately $1 million over the standard approach.

Mr. Chairman, phytoremediation is one of those words that is hard for me to say, and I cannot spell it, that is for sure, but it is a process which uses plants such as sunflowers to degrade contaminants into harmless byproducts.

After successful bench scale testing, we believe it is going to work at Milan, and before the end of the month we are actually going to turn it on there. We believe that we can actually use plants to treat ground water contaminated with explosives.

So Mr. Chairman, in an era of diminishing budgetary resources, we believe that we have no choice but to adopt these kinds of common sense approaches wherever we can. You know, frankly, it is amazing how far common sense will take you.

ROCKY MOUNTAIN ARSENAL

When I was sworn in as Assistant Secretary, I was told that the most difficult environmental problem that I would face would be the cleanup of Rocky Mountain Arsenal. I was told that the arsenal had been an unresolved issue for almost two decades, and that it would probably remain unresolved for many years to come, long after I would be gone.

Well, Rocky Mountain Arsenal in Colorado does represent the most contaminated property in the Army's inventory. It is a very complex set of issues. There are strong feelings and emotional feelings in the local community and the business community as well as inside the Army.

Well, because of the hard work and commitment of many in the Army—and some of our negotiators are here with me this morning—and because of hundreds of people in all the communities, in June of last year we signed a conceptual remedy agreement with the other affected Federal agencies and the State of Colorado, a remedy agreement, I would tell the committee, that will cost us $1.2 billion less than what I was told the cheapest cleanup would cost at Rocky Mountain when I was sworn in. So, I want to take this opportunity to solicit the support of this committee in this important cleanup activity.

Following up on the suggestions of the committee, and particularly Chairman Stevens last year, we are aggressively pursuing public participation in all of our cleanup programs. I am establishing the first Army policy on restoration advisory boards.

Wherever a local community wants to establish an advisory board, including at formerly used defense sites, at the FUDS sites, the Army will assist them and work with them to that end. Now, that approach may cost us a little more on the front end, but I believe it will ultimately save us substantial sums because we have made the local community part of the solution.

Finally, Mr. Chairman, I would say that one of the indicators of success in any environmental program is to measure the number of fines you receive. Well, last year we cut the number of fines from the previous year from 52 to 21, and we cut the amount of fines from $6.3 million to a little over $600,000, by 90 percent.

So Mr. Chairman, I am proud of the Army's environmental program, and I salute all of those committed and talented individuals in the Army who work so hard and with little recognition to make the program so successful.

PREPARED STATEMENT

But Mr. Chairman, the Army will never be content with current success, and we cannot afford to lose momentum. So as we approach the 21st century, I assure the committee that our commitment to environmental stewardship will not diminish.

Thank you very much, Mr. Chairman.

Senator INOUYE. Thank you very much, Mr. Secretary.

[The statement follows:]

PREPARED STATEMENT OF ROBERT M. WALKER

Mr. Chairman and Members of the Subcommittee: I appreciate this opportunity to appear before this subcommittee and submit this written statement on the Army Environmental Program.

The Army remains steadfastly committed to environmental stewardship. Our environmental program is an essential element of our mission to defend the Nation with forces of sufficient size and versatility to meet wide ranging threats. We are also the protectors of fundamental values shared by the American people and always strive to set a responsible example of good citizenship. The Army environmental program focuses on protecting people, natural and cultural resources, equipment, facilities, and land the American people entrusts to us.

The Army's environmental program is unique among the Services in that it has both military and civil responsibilities. My testimony today, however, will address only the military environmental program.

The Army does not view the "environment" and "our mission" as an either/or proposition. Environmental stewardship is inseparable from Army operations. Sound stewardship is value-added to training and readiness, and enhances the quality of life for soldiers, civilians, and their families and assures sustainability of our assets necessary to carry out the military mission.

The Army environmental program enjoys the full support of both the Secretary of the Army and the Chief of Staff of the Army. As stated by General Dennis J. Reimer, "The environmental ethic must be a part of how we live and how we train. Protection of the environment is the key to ensuring we can continue to conduct tough, realistic training and keep the Army trained and ready in the future." General Reimer has established goals to integrate environmental considerations into all Army decisions, prevent pollution at the source, protect and wisely use natural and cultural resources, comply with all applicable environmental laws, and clean up installations as rapidly as resources permit.

The impact of environmental considerations on Army readiness is real. As we continue to build-down and our base structure declines, additional pressure is placed on remaining land, air, and water resources necessary to support a trained and ready force. Tough, realistic training is the cornerstone of readiness. In support of this requirement, rigorously managed use of the remaining land will provide the maneuver areas necessary to sustain a fully trained Army. Anticipating and planning for the effects of military activities upon the environment and the natural and cultural resources will continue to be very important investments in the Army of the future. Effective training demands realistic and productive natural resources.

The success of our Army depends on the quality of our soldiers and civilian work force. Our soldiers and civilians continue to serve with distinction because they truly love the Army. Quality of life is one of the most important factors in a soldier's decision to reenlist in the Army. The Army is committed to improving the quality of life for our soldiers and their families. Every soldier and civilian is entitled to a safe and healthful workplace free of environmental hazards. While our soldiers are facing the many stresses that come with increasing operational tempo (OPTEMPO) of overseas deployments and family separations, they must be assured that their family members are safe and their needs are met.

Modernization is one of the Army's greatest challenges as we move into the 21st century. Most of the hazardous materials used in our facilities result from the material acquisition process. Therefore, an important program for the future is substituting new and innovative technologies for obsolete industrial equipment and processes that produce costly wastes. People in private industry learned a long time ago that reducing or preventing pollution makes good business sense.

ARMY ENVIRONMENTAL STRATEGY

The Army Environmental Program is founded on the vision of being a national leader in environmental stewardship. On November 19, 1992, the former Army Chief of Staff, General Gordon R. Sullivan, and the late Secretary of the Army, Michael P. W. Stone, formally signed the "U. S. Army Environmental Strategy into the 21st Century." This comprehensive document articulates the Army's commitment to meet present and future environmental challenges. Throughout the strategy, the primary values and themes are merged into the vision that clearly demonstrates leadership, preserves and enhances the environment, and illustrates the Army's desire to achieve continued excellence in stewardship. This comprehensive strategy governs all Army activities and provides a structure and framework to meet growing environmental challenges into the next century.

The Army's environmental strategy depicts a model of a building with a foundation and four pillars, or key program areas, supporting the total vision of environmental stewardship. The four pillars are: Pollution Prevention, Conservation, Compliance, and Restoration (Cleanup). The Army has established goals for each of these pillars. Environmental Technology is one of its foundation building blocks.

Pollution Prevention includes efforts to reduce or eliminate pollution at the source. The Army goal is to prevent future pollution by reducing hazardous materials usage and toxic releases. Prevention involves instilling an environmental ethic that will change behaviors to help avoid future compliance and cleanup problems. We vigorously pursue state-of-the-art solutions to avoid future problems. Our goal is to significantly reduce waste and disposal costs by examining industrial processes, manufacturing techniques, and product design to minimize or eliminate the generation of hazardous waste and reduce the use of hazardous materials. Workplace safety is enhanced. Occupational health of the workforce is protected. Wise pollution prevention practices enhance our overall mission readiness by reducing purchase quantities and inventories of stored hazardous materials, and eventually hazardous waste generation and disposal. Pollution prevention can also result in more efficient ways of conducting business and produce non-environmental savings.

Conservation means we conserve and preserve our natural and cultural resources. Conservation focuses on effectively managing and sustaining Army lands to ensure long-term natural resource productivity. Preservation focuses on resource protection. If we do not maintain our training lands and resources today, they will not be available to train America's soldiers for their missions in the 21st century. Our conservation program must pass the following three tests: support the mission; sustain the ecosystem; and be fiscally sound. The Army is the steward for nearly 12 million acres of public lands. We do not own this land; we are caretakers of the land and the plant and animal species that inhabit it. The American people entrusts the land to our care, and we shall fulfill their trust. We shall conserve and protect these resources for the future.

Compliance gives immediate priority to sustained compliance with all applicable environmental laws. The Army objective is to ensure that all current operations at our facilities comply with applicable Federal, state, local, and host nation environmental requirements. Failure to meet statutory and regulatory standards and requirements results in fines and penalties and can impact the readiness of our forces by restricting or prohibiting operations. Environmental compliance at an installation is a command responsibility. Our installation commanders have an extremely difficult task in achieving compliance with a wide variety of environmental laws and implementing regulations.

Restoration (Cleanup) restores previously contaminated sites as quickly as funds permit, whether the site is still within the Department of Defense (DOD) inventory, (i.e., an active and/or Base Realignment and Closure (BRAC) site) or a Formerly Used Defense Site (FUDS). Protection of human health and the environment is the overarching goal for our restoration program. Using the "relative risk" concept for cleanup, the Army is working hard to ensure that the health and safety of people living in the communities near our installations and employees and residents of our installations are protected. We are expediting cleanups to facilitate disposal of excess Army properties for local reuse.

Environmental Technology focuses resources to achieve rapid prototype testing of new technologies for early field testing and regulatory certification to allow quick exploitation. The environmental technology program supports the Army environmental strategy through a partnership with user and the technology communities. The environmental technology program can reduce the "cost of doing business" and minimize the drain on our limited resources.

BUDGET

Senior leadership direction, involvement, and support continues to be strong and visible. Our senior leadership's resolve is demonstrated by the commitment of significant resources to meet environmental responsibilities. I believe the budget request will allow us to continue our efforts to comply with laws and regulations and exercise prudent environmental stewardship. We have stemmed the growth in environmental programs of the past few years and anticipate stable to slightly declining funding levels in the future. In fiscal year 1996, we plan to spend about $1.6209 billion for all Army environmental programs. Our fiscal year 1997 budget request is $1.4254 billion.

ACCOMPLISHMENTS AND INITIATIVES

I am truly proud of the tremendous strides America's Army has made to meet the myriad of environmental challenges. I am pleased to highlight areas where our efforts are especially noteworthy and present some of the more notable ongoing or future initiatives.

First, after successful field testing in fiscal year 1995, the Army Chief of Staff directed full fielding of the Installation Status Report (ISR), Part II (Environment) in fiscal year 1996. The ISR is a decision support system that establishes Army-wide standards, assesses environmental compliance and program performance, summarizes environmental conditions, measures environmental mission impacts, enhances the importance of pollution prevention, and articulates resource shortfalls and outcomes. Commanders annually complete media-specific assessments that are compared to generic performance standards resulting in green, amber, and red media ratings that are converted to Army program condition C-ratings. The goal of the ISR, Part II, is to capture the macro-level status of the environmental program at Army installations to improve the justification and prioritization of limited resources. Installations will submit initial reports through their major commands in June 1996.

Second, under the DOD-directed initiative, the Army established four regional environmental offices at Atlanta, GA; Aberdeen Proving Ground, MD; Kansas City, MO; and Commerce City, CO, for Environmental Protection Agency (EPA) Regions IV, V, VII, and VIII. These Regional Environmental Coordinators represent DOD interests with respect to Federal, state, and local environmental laws and regulations. They help reduce conflicts, bolster cooperation, and generally improve relationships with the Federal, state, and local environmental regulators.

Finally, the Army Environmental Policy Institute (AEPI) continues to help us manage today's issues, even as it explores and defines the range of plausible future issues and policies that are responsible managers of risk. AEPI lends further strength to Army long range strategic planning through combining the best of foresight techniques and information technology, enhanced by partnering with the Nation's best experts from industry, academia and other government agencies. It is charged to look and think ahead to develop cost-effective future environmental policies and strategies to address environmental issues of significant importance to the Army. This Congress has specifically requested that the AEPI establish and direct an Environmental Policy Simulation Laboratory (EPSL) to develop policy simulation models for air, water, soil, noise and visual pollution from military operations. AEPI has defined the mission of EPSL and conceptualized a functional network that will partner with the best policy analysts, environmental technologists, economists and risk assessment and management expertise worldwide. This network will be established inexpensively through the worldwide web. Previous Congresses have requested AEPI's assistance in defining policy related to health and environmental effects of depleted uranium (DU) and the demilitarization programs. I am pleased to report that the Army's work with DU is close to being completed. A comprehensive report was delivered in April 1996. As a result of this report, several additional studies were initiated with the Georgia Institute of Technology, University of New Mexico, University of Alaska, and the Pacific Northwest Labs. The results of these studies are expected early in fiscal year 1997. AEPI is working closely with the Program Manager for Chemical Demilitarization, to examine current program environmental policies and operations. AEPI has already identified a management and decision support system to streamline environmental planning, communication and policy decision making. AEPI is opening new initiatives on the application of disciplined risk management techniques to environmental issues and programs to ensure desired results at reasonable cost.

POLLUTION PREVENTION

The Army recognizes that prevention is the best long-term solution for reducing risks to human health and the environment from pollution. Our pollution prevention program focuses on eliminating pollution through substitution or elimination of processes and activities that generate pollution.

The public, private, and service sectors are equally embracing pollution prevention as the preferred strategy for environmental management. We can no longer rely solely on compliance-oriented environmental program management techniques. End-of-pipe treatment and control of waste and extensive restoration of contaminated sites are extremely expensive and passes risks to our workforce and communities.

The Army is changing its institutional behavior by integrating pollution prevention into our research, development, and acquisition process. Pollution prevention must be fully integrated into all facets of the acquisition process, ranging from the budget process to the review of proposals. The ultimate goal is to eliminate or reduce the use of hazardous materials within the system acquisition process for both new and existing systems.

Pollution prevention continues to have a positive impact on readiness by reducing operating costs and enhancing quality of life. Our environmental managers are teamed with logisticians, industrial plant managers, and military leaders to reduce the use of hazardous materials and the generation of hazardous wastes. This further extends to our individual soldiers, civilians, and family members who actively support installation recycling programs. We are closely examining existing acquisition policy to discover new ways to minimize pollutant generation and resulting correction costs through the entire system life cycles.

The Army is seeing measurable signs of progress in pollution prevention. At the 1995 Army Earth Day award ceremony, the Texas Army National Guard was recognized for its achievement in meeting its environmental challenges. The Texas Army National Guard was cited for reducing its waste generation by 50 percent from 1991 to 1994. Their efforts are now focused on further reducing waste generation by 80 percent, by 1999.

During the period from fiscal year 1990 to 1995, Army installations achieved considerable success at recycling solid and hazardous wastes. The Army currently has 176 installations with recycling programs. Twenty-one of these installations participate with their local communities and 49 also have hazardous materials recycling programs. During this same time period, reporting Army installations recycled over 30 million pounds of solid (paper, plastic, and metal) and hazardous materials/waste. Net recycling proceeds were over $15 million. Approximately $11.5 million of the recycling program profits were spent on local installation morale, welfare, and recreation activities, many of which support quality of life programs. Over $3.7 million of the recycling profits were spent on other environmental projects. The true value of recycling can be seen not only in net proceeds and waste reduction, but also in savings of more than an estimated $71 million in waste disposal fees. As recycling programs expand, the Army expects to generate even greater revenues and savings through increased cost avoidance.

A local recycling program at Lake City Army Ammunition Plant (LCAAP), Missouri, won the prestigious White House Closing the Circle Award as one of the nations finest recycling centers. LCAAP generates solid waste ranging from common office items such as paper, cardboard, and plastic to complex byproducts of the ammunition trade: propellant powder, scrap ammunition cartridges and cans, lubricating oils and mercury. Starting in 1993 as a paper recycling program, LCAAP recycled 60 percent of its solid waste in the first year. Total recycling jumped to 85 percent in 1994.

We will never be content with our success to date and cannot afford to lose our momentum. The Army is moving forward with fielding of the Hazardous Substance Management System (HSMS), the DOD-selected hazardous substance tracking, reporting, and management software. After field testing at an initial five installations, HSMS will be fully fielded from fiscal year 1997 through fiscal year 1999 to the balance of the active component and a portion of the reserve component. HSMS encourages the central management of hazardous materials at the installation. Under centralized management of hazardous materials, Army environmental managers are partnering with logisticians to create an installation program with the goal to reduce the use of hazardous material through strict inventory control. Small supply activities no longer procure and store hazardous materials. Installations develop an authorized users list of the numerous hazardous materials and then centrally manage the hazardous material inventory and disposal or reuse of the hazardous material. Cost savings and cost avoidances come from both reduced hazardous material purchases and a reduction in the amount of hazardous waste disposed.

Solid waste will be significantly reduced by new or modified technology. Our research and development programs are refocusing toward this end. I expect positive results from these initiatives in the mid-term. Until then, significant efforts are underway to educate and train the entire work force in the pollution prevention ethic. These individual contributions are expected to significantly accelerate our current programs.

Our pollution prevention budget request of $98.1 million for fiscal year 1997 will continue our momentum toward our goal of minimizing the use of hazardous materials and the production of hazardous wastes. The Army views pollution prevention as best management practice that results in reduced life cycle costs, reduced liability, improved public image. and enhanced environmental stewardship.

CONSERVATION

Army installations that now serve as home to more than one million soldiers and their families are also the home to some 131 endangered species of plants and animals. On these same installations there are more than 35,000 known cultural resource properties that include historic buildings and significant archaeological sites.

The overarching goal of the Army's conservation program is to support readiness by maximizing availability of land and sustaining the environment for field training and testing. Many Army training areas are becoming islands of natural habitat in a sea of residential and commercial development. Our commanders recognize their responsibility to protect these lands as they become increasingly scarce and valuable. The Army puts significant emphasis on protecting and maintaining our installations and training lands, and relies on scientific protocols to guide us in our land use and investment decisions. Commanders realize that conservation activities directly support Army training and readiness. The Army's modest investment in conservation programs helps support OPTEMPO through natural resource management of lands used for training.

Within the Army, natural resource managers are partnering with trainers to maintain key land-based resources to sustain realistic training on Army lands. Integrated Training Area Management (ITAM) is one of the Army's most valuable conservation programs. The Army leadership made the decision to transfer responsibility for our ITAM program from the Environmental Staff to the Operations/Training Staff in the Office of the Deputy Chief of Staff for Operation and Plans. ITAM is now formally linked to our training and operations community. Our intent was to place responsibility for land management with those responsible for training on those lands. As the Army moves forward with the program, our trainers are doing some innovative things with what was already a valuable program. Three actions are particularly noteworthy.

First, we are reviewing the protocol that is used to survey and monitor natural resource conditions and trends on our training lands. The traditional Land Condition Trend Analysis (LCTA) protocol is being revisited with the objective of making it more effective in detecting the impacts of training and adopting current technology to the process of collecting condition data and making the process more applicable to, and supportive of, the needs of installation level land managers.

Second, we use division training plans to measure our land use requirement. In doing so, we are better able to measure the capacity of our lands in terms of how we actually conduct training. Training models reflecting events, type of units, and tactical equipment impacts, in the context of how the Army trains, will significantly improve how we measure our land's capability to sustain our training.

Finally, ITAM helps drive our investment requirement for land maintenance and rehabilitation. By developing and introducing factors based on division training strategies, recognizing the ecological settings of our various installations where those strategies are executed, we will be able to tailor our investment in direct relationship to the extent and type of training conducted at each installation.

Our goal is to establish ITAM Army-wide. We are excited about the direction our trainers are going with ITAM and believe they are improving on a program that is essential to the good health of one of the Army's most critical assets—its training lands.

The Army has a major challenge—accomplishment of a very intensive and serious ground forces training mission, while meeting Federal stewardship objectives to sustain ecological resources and comply with the law. This challenge can be met by our installations through the preparation and execution of integrated natural resources management plans (INRMP). ITAM is becoming the integrator of land uses on training areas and is the primary implementation vehicle for INRMP.

The Army developed and issued an Endangered Species Management Strategy and Action Plan which institutionalizes our management process for resolving Army-wide endangered species issues. This plan includes policies for complying with the Endangered Species Act. This guidance will help improve the decision making process used by our installation commanders in their management of threatened and endangered species in conflict with military operations. Positive cooperation between the Army and the U.S. Fish and Wildlife Service provides the framework to resolve conflicts between military training readiness and the conservation of endangered species on Army installations. Our most current effort is a joint revision of the Army's red-cockaded woodpecker management guidelines affecting nine installations in the southeastern United States.

The Army is working to preserve and protect historic structures and archaeological sites in accordance with the National Historic Preservation Act and other cultural resource laws. We have a program to meet the requirements of the Native American Graves Protection and Repatriation Act and have completed 79 installation compliance reports.

The Army continues to execute interagency agreements with other Federal and state agencies designed to improve coordination concerning the management of sensitive natural and cultural resources on our installations. During fiscal year 1995, the Army, in conjunction with DOD and the other Services, established an interagency agreement with the National Biological Service. This agreement, coupled with other earlier agreements, optimizes use of limited resources and improves relationships with land mangers and regulators. Also, we are currently working on an interagency agreement with the Advisory Council on Historical Preservation to facilitate the consultation process for Army properties.

The fiscal year 1997 budget request of $32.2 million for conservation programs will preserve the quality of land resources, and comply with regulatory requirements to protect endangered species and other natural and cultural resources. Protection of these resources is vital for soldier's continued access to quality ranges and realistic training, as well as the sustainability of the Nation's resources.

COMPLIANCE

Our compliance program focuses on activities designed to ensure that current operations at installations and activities meet Federal, state, and local environmental requirements, as well as the applicable Final Governing Standards (FGS) overseas. These requirements include statutes, case law, Executive Orders, regulations, policies, and directives from more than 50 major Federal environmental laws. Full and sustained compliance is very challenging. However, the greatest challenge will be to continue our compliance posture, and, at the same time, effectively transition to the prevention mode of operations.

The Army's "must fund" policy requires commanders to identify areas where standards are not being met, or where standards may not be met, and to align resources to ensure appropriate responses to achieve compliance. Specifically, policy requires that all EPA Class I (i.e., noncompliance) requirements, all Class II that will become Class I by the end of the fiscal year for which budget estimates are formulated, and hazardous waste disposal must be funded. This tough policy has improved our compliance posture by ensuring that legally-mandated requirements are funded, providing command emphasis, and increasing visibility of environmental requirements. Our funding policy sends a clear, strong, positive message to the regulators that the Army is serious about meeting its environmental responsibilities and enhancing our overall public image.

The Environmental Compliance Assessment System (ECAS) remains the keystone of our compliance program. Army installations across the United States and overseas are using this standardized system to evaluate their compliance with numerous Federal, state, local, and applicable host nation environmental laws and regulations. ECAS helps installation commanders identify problems, select corrective actions, and program required resources. Army environmental staffs are finding that ECAS is a valuable tool for pinpointing problem areas and shaping a sound compliance program. The use of ECAS not only leads to better environmental stewardship but also improves unit readiness and installation quality of life by minimizing health threats, and reducing the amount of funds diverted to pay fines and penalties for noncompliance. I am a firm believer that the ECAS process provides the secondary benefit of increased environmental awareness to major Army commands (MACOMS) and installation staffs. Since implementation of the ECAS program in 1992, over 1,387 assessments have been conducted. This includes 148 active Army installations, 1,180 Army Reserve installations, and 59 Army National Guard installations. The active Army installations conduct an external assessment every three years (except for Army Materiel Command installations, which conduct external assessments on a four-year cycle). Beginning with the second round of assessments that began in fiscal year 1995, the program is being further streamlined to improve the report preparation process, to better track the corrective actions, and to give MACOMS more oversight of the process. The fiscal year 1997 budget request will continue to support a similar level of effort as that for previous years.

Despite our commitment to environmental excellence, the Army continues to experience degrees of noncompliance and challenges in environmental management. The majority of our enforcement actions (ENF's) are operational or administrative in nature. From fiscal year 1992 through fiscal year 1995, over 41 percent of the ENF's issued to Army installations were due to violations of the Resource Conservation and Recovery Act (RCRA). RCRA regulates management, transportation and disposal of solid and hazardous waste, and the management of underground storage tanks. Eighty-five percent of the ENF findings issued under hazardous waste regulations required only an administrative or procedural correction versus a construction project. Army efforts to help installation commanders determine the size of the environmental staff they need, and also efforts to improve and expand technical training should help reduce these findings. During fiscal year 1995, there were 241 ENF's, about a 21 percent decrease from fiscal year 1994. While ENF's over the past few years remain relatively constant or declined slightly, the amounts of fines and penalties assessed has increased since the passing of the Federal Facility Compliance Act. Through March 1, 1996, a total of $10.6 million in fines and penalties has been assessed against the Army. The Army program performance reflects a 64 percent decrease in frequency from fiscal year 1994 to fiscal year 1995, while the average assessment decreased by more than 90 percent over the same period. This is particularly encouraging and is a positive indicator of the ECAS program's effectiveness, given that one of the primary objectives of the ECAS program is to reduce the number and amount of fines and penalties received.

The Army's air quality program goal is to control emissions to the atmosphere to protect human health and the environment. One of the most important tasks in implementing the Clean Air Act Amendments of 1990 (CAA) is to ensure that all Title V (Major Source) permit applications are submitted in accordance with prescribed regulatory guidelines. The Army's efforts to provide guidance and training for CAA implementation will greatly enhance the ability of installations to meet the regulatory deadlines.

The EPA's proposed Military Munitions Rule, published in November 1995, states in the preamble that the DOD draft its own Federal regulation for military ranges. The Army is the lead for DOD in developing a Range Rule to address the management of military munitions on closed, transferred or transferring ranges. The regulation will address safety, human health, and the environmental impacts on these ranges. As part of the rule-making process, citizens and interested groups will have opportunity to provide their comments and concerns.

The Army must, and will, comply with environmental laws passed by Congress and the implementing regulations created by Federal, state, and local regulatory agencies. The fiscal year 1997 budget request of $595.8 million will correct existing deficiencies and make improvements to meet new and tougher standards.

RESTORATION (CLEANUP)

Our Defense Environmental Restoration Program (DERP) and BRAC programs continue to produce positive results. Using the "relative risk" approach to cleanup at Army installations, the Army has worked diligently to ensure that the health and safety of people living in the communities near our installations, as well as our installation personnel, are protected. In fiscal year 1995, the Army obligated over 58 percent of the Defense Environmental Restoration Account (DERA) funds to actual site cleanup, indicating our continued trend of conducting more cleanup and less analysis and management.

Our program goal for fiscal year 1997 is to spend an ambitious 65 percent on actual cleanup. We have identified 10,381 potentially contaminated sites to screen at 1,090 installations, with 6,861 sites requiring no action. Preliminary Assessments (PA) at all sites have been completed and 6,268 require no further action. Final remedial actions are complete at 427 sites and 733 interim remedial actions have been completed at 500 sites. Actions are planned or underway for 3,520 sites.

The Army is executing a $417 million environmental restoration program in fiscal year 1996. The fiscal year 1997 request includes $356.9 million for Army installations. The Army's cleanup program continues to show extremely positive results. Significant cleanup activities in fiscal year 1995 included the signing of the first "natural attenuation" Record of Decision (ROD) for chlorinated hydrocarbons and explosives in ground water at Sierra Army Depot in California. Natural attenuation involves a commitment to continue monitoring ground water to determine if contamination levels increase and, if not, to permit contaminants to naturally degrade or disperse without physical treatment. This innovative technology could potentially avoid millions in unnecessary treatment costs if applied nationally. The Army has since provided guidance to evaluate the feasibility of natural attenuation at all sites undergoing remedy selection.

At Rocky Mountain Arsenal, our largest cleanup, the Army completed incineration of over 10 million gallons of highly contaminated fluid at Basin F. Over 120 tons of copper were recovered from Basin F wastes for beneficial reuse. In June 1995, we signed a Conceptual Remedy Agreement with other affected Federal agencies and the State of Colorado. The agreement concludes over two years of negotiations and stakeholder input. This agreement enabled the Army to move forward with formal remedy selections for both the off-post and on-post cleanups. The off-post ROD was signed in December 1995, and in January 1996, we reached an agreement on water negotiations with the South Adams County Water and Sanitation District to provide 4,000 acre-feet of water and water connections for individuals with well water that could become contaminated in excess of health standards. In the summer of 1996, we plan to complete the comprehensive on-post remedy selection.

In fiscal year 1995, the EPA deleted Landfill Number 5, at Fort Lewis, Washington, from the National Priority List (NPL). This was the first Federal facility removed from the NPL. The Army studied the site for potential effects on the environment and built a cap and monitoring system for the landfill. After subsequent monitoring showed no further action was warranted on the site, EPA, Army, and the State of Washington Department of Ecology agreed no further action was necessary at the site.

The Army has 86 installations and 53 stand alone family housing areas identified under BRAC 88, BRAC 91, BRAC 93, and BRAC 95, that are scheduled for closure or realignment and property transfer under BRAC laws. Since implementation of the "Fast Track Cleanup" initiative of the President's Five-Part Community Revitalization Program, the Army has designated full-time BRAC Environmental Coordinators or FAST Track Cleanup Points of Contact for each installation where property is available to the community. Where applicable, we have established BRAC Cleanup Teams (BCT's) and developed BRAC Cleanup Plans to ensure cleanups are planned to support beneficial reuse, and to protect human health and the environment. For BRAC 95 installations, the Army has already established 19 BCT's with one other currently under development. We have been proactive in establishing Restoration Advisory Boards (RAB's) to facilitate public involvement. For BRAC 95 installations, we are well ahead of the 18-month requirement to complete environmental baseline surveys (EBS's) for clean parcel identification under the Community Environmental Response Facilitation Act (CERFA).

The Army has transferred approximately 41,473 acres. During fiscal year 1995, the Army issued one major lease, six minor leases, and two leases of conveyance. The major lease was for all the land at Lexington-Bluegrass Army Depot. The minor leases were for buildings at various installations, and the leases in furtherance of conveyance were for the homeless assistance purposes at the former Fort Ord. We have completed the required cleanup at all stand alone housing areas and at 10 BRAC installations. Cleanup is underway at an additional 18 BRAC 88 installations. All BRAC 91 installations have completed studies, have studies ongoing, or are in the cleanup phase. Currently, 51 installations (25 pre-BRAC 95) have excess property available for community reuse. Local Redevelopment Authorities (LRA's) have completed reuse plans at 15 pre-BRAC 95 installations; the remaining pre-

BRAC 95 installations do not have a local redevelopment authority formed. LRA's are forming at most applicable BRAC 95 installations (17 have already been approved).

In the Fiscal Year 1996 Military Construction Act, Congressional notification was required for funds to be transferred from construction activities into non-construction activities such as environmental cleanup. In effect, a ceiling was placed on environmental activities in support of BRAC environmental matters. We believe that environmental ceilings are not conducive to the flexibility required to fund cleanup at property that is available for community reuse. Such flexibility would help us respond to changing circumstances affecting each BRAC installation, such as local reuse plans, regulations issued by EPA and each state, and changes in requirements resulting from studies and investigations. As environmental studies and beneficial reuse plans evolve, cleanup requirements often change. We need flexibility to respond by drawing on available BRAC resources without a ceiling on environmental spending.

The Army is executive agent for the DERA funded FUDS Program. Approximately 8,769 formerly used properties, with potential for inclusion in the program, have been identified. This is an increase of 453 new properties during fiscal year 1995. Preliminary Assessments have been completed at 7,502 properties, of which 5,166 properties have been determined to require no further action. Of the 2,336 properties determined to require action, 368 are completed. Actions are underway or planned for the remaining properties. Funding in fiscal year 1995 for the FUDS program was $259 million.

Major highlights of the FUDS fiscal year 1995–1996 program include: (1) completed of a 5-year cleanup program in only 20 months at Raritan Arsenal, New Jersey, by excavating approximately 17,500 cubic yards of contaminated soil and debris and replacing the baseball field for Middlesex County College; (2) completed soil washing to remove 14,530 tons of heavy metals contamination in one construction season and 1,750 tons of drums, utilizing local labor in support of beneficial reuse at Gustavus Airport in Alaska; (3) rapidly responded to safely and quickly remove 268 glass vials of buried chemical agents at the Mississippi State Fairgrounds in Jackson, Mississippi; (4) removed 6,969 tons of debris and over 53,000 drums from 14 sites in Nome, Alaska, using local labor, resulting in significant savings in training, travel, and per diem costs; (5) reduced NPL boundaries by 67.5 percent from 8,323 acres to 2,704 acres and expedited the regulatory review and approval process at West Virginia Ordnance Works.

Limited funds hampered fiscal year 1996 efforts to meet the goal of completion of PA's at all FUDS properties. The fiscal year 1997 budget request of $223 million will be sufficient to complete the PA's and embark on a goal of completing all necessary site inspection work at FUDS properties by fiscal year 1999. It is estimated that FUDS will require approximately $20 million in each fiscal year through fiscal year 1999 to complete the site inspection work to provide the necessary data to complete the relative risk assessment for each property that remains under evaluation for possible remedial action.

The Army is DOD lead agent for the Defense-State Memoranda of Agreement (DSMOA) program. In this program, begun in 1990, DOD provides funding to states and territorial regulatory agencies to hire personnel and provide support to the DOD environmental cleanup programs at FUDS, non-closing, and closing installations. These agreements have been reached with 48 states and territories, with funding provided to 45 of these states. The DSMOA is considered one of the most successful partnering efforts in DOD. Cooperative efforts with states and territories save both time and money by reducing review times, ensuring availability of state and territorial personnel to review DOD cleanup documents and attend meetings, expediting the priority setting and decision making process, and facilitating improved community relations. Together with the states and territories, it has been estimated that the DSMOA has avoided over $2 billion in environmental cleanup costs and reduced cleanup times at an investment of approximately $140 million.

Some examples of DSMOA's successful fiscal year 1995–1996 program include: (1) support of the DSMOA by the Maryland Department of Environment led to the acceptance of innovative technology at the Edgewood Area of Aberdeen Proving Ground, allowing the use of a permeable infiltration unit at a cost of $8.5 million negating the need for removal estimated at $1 billion (2) Longhorn Army Ammunition Plant (LHAAP), Texas, received help from the DSMOA to identify a cost efficient means of management oversight for LHAAP thereby saving over $7 million. A stable, steady funding level must be maintained to continue this strong partnership.

We have aggressively pursued public participation in all our cleanup programs. At this time, we have established RAB's or Technology Review Committees at 35

Army installations, 18 BRAC installations and 17 FUDS properties. Additionally, we are planning to establish or are evaluating public interest for RAB establishment at six Army installations, seven BRAC installations, and at eight FUDS properties. Further, in fiscal year 1995, the Army participated in seven DOD sponsored national training workshops to communicate RAB policy and guidance. Attendees included representatives from DOD organizations, EPA, state regulatory agencies, community organizations and interested citizens. Although the need exists to continue this training, no public participation training is scheduled in fiscal year 1996 due to budgetary constraints.

The Army supports the DOD proposal to devolve the DERA to the Services in fiscal year 1997. We believe that devolvement will enable the Army to more quickly obtain and obligate DERA funding. We have mechanisms in place to ensure responsible programmatic and fiscal control of DERA funding. We have implemented the DOD relative risk concept to ensure that priority for available funding is provided to the sites that represent the most severe environmental or human health hazard.

Because environmental cleanups typically entail a sustained commitment over several years to accomplish, it is important that a stable program funding level be maintained to avoid unnecessary and uneconomical stops, starts, and delays in project accomplishment. For this reason, we recommend that DERA remain a restricted account even if the program is devolved to the Services. This will ensure the continuation of a sustained and stable funding source to address our cleanup commitments and obligations without having to compete directly for funding with other mission requirements in the year of program execution.

We recommend against Congressional establishment of arbitrary goals for remedial actions. We believe that the Army has made steady progress in moving from a program heavily weighted toward analysis and investigations to a program heavily weighed toward actual cleanup. For fiscal year 1997, the Army has an ambitious 65 percent goal for remedial action. This continues a clear trend of more cleanup than analysis since fiscal year 1994, and our projections indicate a continued percentage increase in remedial actions over the next few years. Nevertheless, we must retain flexibility to fund the necessary analysis and investigations that will enable us to determine and select the most cost-effective remedies at our contaminated sites.

In addition to a large inventory of sites that still requires completion of site contamination characterization, we have determined that prudent investment in site analysis can yield significant cost avoidance in remedial action costs. For example, at Tobyhanna Army Depot in Pennsylvania, the Army is near agreement with the state and EPA on adoption of a "natural attenuation" remedy. After removal of the source of 1,1,1 trichloroethane contamination, the Army was able to demonstrate that the contaminant concentrations were actually declining in the ground water. The state and EPA had originally required the installation of an expensive pump and treat system. By investment in ground water sampling and modeling to justify selection of the natural attenuation remedy, we estimate that the Army may avoid as much as $5 million over the pump and treat remedy.

We strongly encourage Congressional funding of our budget requests for our fiscal year 1997 environmental cleanup programs. Reduction of funding results in fewer and slower cleanups. Although the Army will take action to address all immediate threats to human health and the environment, reduced funding stretches out the life of the cleanup program and increases total cost. That often means that contaminants will remain longer as potential hazards to drinking water supplies, and beneficial reuses of land will likely be delayed. The Army needs strong Congressional support for our fiscal year 1997 budget request.

ENVIRONMENTAL TECHNOLOGY

The Army's environmental technology program is an important foundation element tightly woven into the four environmental pillars, or mission areas. The environmental technology program policy is to support the Army's Environmental Strategy by providing exceptional products in a timely manner through partnerships with users and the technology community. Our goal is quite simple—use environmental technology to reduce the cost of the environmental program, making more funds available for readiness, quality of life initiatives, and modernization.

The Army is moving forward to provide an appropriate mix of near, mid, and far term innovative environmental technologies for solving unique environmental requirements. Our user requirements process ensures a user-driven technology program. With this focus, the technology community concentrates its efforts on high priority environmental thrust areas defined by the users.

Our environmental technology strategy is to identify and document validated user requirements; build strategic plans listing all research and implementation efforts required to satisfy the user requirements; develop, program, and fund the required projects outlined in the strategic plan; and work with technology implementors in demonstration/validation and field implementation of new technologies.

The Army continues to test promising technologies for detecting and removing unexploded ordnance from ranges and proving grounds. A demonstration project at Jefferson Proving Ground, Indiana, is helping the Army find better technologies for tackling this cleanup challenge. The selection of natural attenuation at Sierra Army Depot, California, avoided a potential cost of $2.5 million over more traditional pump and treat systems. Use of phytoremidation to biologically neutralize explosives residuals in Milan Army Ammunition Plant, Tennessee, could potentially avoid approximately $1 million over standard pump and treat technology.

The Army budget request is $27.4 million in fiscal year 1997 for our environmental technology program to develop smart technologies to reduce costs and prevent future liabilities.

CONCLUSION

We need to be successful in all aspects of our environmental stewardship. Few Army programs implemented over the last few years have been more closely scrutinized and received more command attention than the environmental program. From its relatively meager beginnings, today's program is firmly established on a solid foundation of people, funding, management and organization, communications, and shared values. Our fiscal year 1997 program provides the necessary tools for us to maintain our programs.

I will close by praising the many soldiers and civilians directly involved in the Army's environmental program. They are dedicated and strive to do the best job possible under some formidable conditions. Above all, we must remember that people make our programs a success.

As the Army approaches the 21st century, the Army's commitment to protecting the environment will not diminish. The environmental goal of America's Army is clear. The mission is understood. The environmental ethic is ingrained into everything we do. Environmental stewardship, both here and overseas, is our responsibility, our legacy, and our future.

STATEMENT OF HON. RODNEY A. COLEMAN, ASSISTANT SECRETARY OF THE AIR FORCE (MANPOWER, RESERVE AFFAIRS, INSTALLATION, AND ENVIRONMENT)

Senator INOUYE. May I now call on the Assistant Secretary of the Air Force, the Honorable Rodney Coleman. Secretary Coleman.

Mr. COLEMAN. Mr. Chairman, members of the committee, thank you very much. I am very pleased to have this opportunity to discuss the Air Force environmental program, which we believe affords the best investment for America by protecting our installations, our natural resources, the health of our communities, and access to our training ranges.

The Air Force is committed to having the best environmental program in the Government. Just last month, we won 8 of the 13 annual DOD environmental awards.

The next century will present real challenges for the Air Force to make maximum use of its resources in order to enhance and sustain mission readiness. The Air Force environmental program is integrated and incorporated in all Air Force activities.

The Secretary and the Chief have defined the key principles of the Air Force environmental program that we will use as we go into the next millennium, and these are sustained readiness, to be a good neighbor, and to leverage our resources. They are the watchwords for our program from our airmen to our generals.

Good environmental practices help assure the Air Force the training ranges and the air space that it needs to be mission ready while at the same time assuring the American people that they have made the right choice to entrust us with the use and care of over 9 million acres of America's lands. These practices protect our natural resources that provide real life terrain which replicates the many conditions, from ice caps to sand drifts, making our training as real as possible.

COMMUNITY INTERACTION

Our model for the interaction between the community and the Air Force to support the availability of our Air Force ranges comes from our Alaskan air space initiative. By working openly with the Alaskans, we will soon have air space the size of Kansas to train our air crews so they can effectively defend our Nation well into the next millennium. We will keep strengthening our partnership with our host communities, and assure that Government is effective and can solve the tough issues involving pollution of the air and water.

These communities are ready and eager to participate. They come with the spirit of partnership and a refreshing vigor to help us meet the environmental challenges of the next century. We feel it is a team that cannot lose.

The focus of the Air Force environmental program is to reduce cost and increase efficiencies that will help us improve performance while protecting our work force, our neighbors, and our environment. Our goal is to be the leader in building a clean, healthy, productive industrial complex based upon best management practices, in addition to new environmental technology and products that provide high tech jobs.

Obviously, our air space and ranges are directly connected to our mission, but our installations reflect the history of our Nation and the Air Force. They represent the men and women that have served and given their lives for freedom.

Recently, the Air Force, the Advisory Council on Historic Preservation, and other leaders in historic preservation signed a proclamation that emphasizes that the preservation of our history is cost effective and supports the Air Force's changing mission and I wish to emphasize that in meeting our need to preserve our heritage, we must also minimize the impact on our ability to do our mission.

AIR FORCE CLEANUP

As we ensure access to our critical air space ranges and installations, we must also address the concerns of the past with our cleanup program. Our cleanup program can produce results, as shown by our BRAC cleanup program, by which we will remediate all of the installations in the 1988, 1991, and 1993 rounds in time for the next millennium.

To do this, we are working closely with our communities to work on the worst of our concerns first. We are working to bring our cleanup dollars back to the effective communities. For fiscal year 1996, we estimate that over 90 percent of our BRAC dollars will be awarded to local, small, disadvantaged business. Our goal is to provide contracting mechanisms that maximize the use and abilities of local contractors, including training to assure that our actions provide stable and secure jobs. Our cleanup, for instance, at King Salmon will use this approach.

We have also challenged States, the EPA, and ourselves to engage in what we call the fifth pillar of environment, and that is creativity. We are finding that letting God do it can have results. We are seeing that some types of contaminants are cleaned up better by natural biology, through natural attenuation, like Mike Walker just said. In some cases, this has lowered the cost to remediate a site by an order of magnitude or more, and this technology may be applicable to over 500 of the Air Force sites requiring treatment.

But I would most like to address where you can help us meet this goal of completing our cleanup program. Let us signal our joint desire to get on with the work by providing stabilized funding and devolving the account to better align execution and program responsibilities. This, in our estimation, will allow us to develop a firm schedule to complete and then to use the strengths of the Air Force to complete the schedule.

If the communities or regulators lose faith in the Air Force's commitment to clean up the environment, they will leave the partnering process and resort to legal methods, including stipulated fines for noncompliance. This will slow progress and increase cost.

PREPARED STATEMENT

Mr. Chairman, the proactive strategies, strong leadership, and commitment from the Air Force environmental program, significantly enhances the environmental quality of our installations and surrounding communities. The three environmental elements of sustained readiness, being a good neighbor, and leveraging our resources, are working in concert to achieve a fully integrated and functional Air Force organization that embodies strategic partnerships and enhanced readiness. Through this effective integration we provide a program that makes sense, increases productivity, decreases cost, and is good for America.

I thank you for the opportunity to discuss our program.

Senator INOUYE. Thank you very much, Mr. Secretary.

[The statement follows:]

PREPARED STATEMENT OF HON. RODNEY A. COLEMAN

Mr. Chairman and members of the committee, I am pleased to have this opportunity to discuss the Air Force program in environment, safety, and occupational health.

The environmental, safety and occupational health program results in an Air Force that fights longer, better and cheaper with a minimal cost to the environment. I'd like to outline how the Air Force will seek to achieve these goals in the next 5 years and ask for your support in reaching them.

ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH PRINCIPLES

America wants environmental programs that work better and cost less. In March 1995, the Secretary and the Chief of Staff defined the key principles that the Air Force environmental program will use as it enters the 21st century. These principles are: Sustain readiness, be a good neighbor, and leverage our resources.

These principles are the watch words of our program from the airman on the flightline to the generals here in Washington.

Sustain readiness.—Good environmental practices help ensure the Air Force has the training ranges and airspace it needs to be mission ready, while at the same time assuring the American people they have made the right choice by entrusting us with the use and care of over nine million acres of America's rich habitats and varied ecosystems. Good environmental practices protect our natural resources that provide the real life terrain which replicates the many conditions—from ice caps to sand drifts—under which we may be called to defend freedom and keep the peace. Scientific stewardship of our natural resources also preserves America's rich natural beauty and abundance. We take our stewardship responsibilities seriously, so we will always be "America the Beautiful."

Be a good neighbor.—During the past year, the Air Force has worked hard at being a good neighbor to our communities. As I travel throughout the Air Force, our men and women are working together with American communities to deal with tough environmental issues. We are revitalizing and expanding the critical partnership that has always existed between the military and our people. As a part of this revitalization we are demonstrating that government is effective and can solve the tough issues involving pollution of the air and water. Our communities are eager to participate in this work and are coming into the process with a spirit of partnership and a refreshing vigor as, together, we try to build an Air Force which will meet the environmental challenges of the next century.

Leverage our resources.—We all understand that the next century will present real challenges for the Air Force to make maximum use of its resources in order to maintain mission readiness. We all recognize that we must get the most "bang for the buck" and that the environmental program must play a key role in this effort. We are focusing the Air Force Environment, Safety and Occupational Health program on reducing costs and increasing efficiencies that also will help us improve performance while protecting our workforce, our neighbors and our environment. We can leverage our investment for America and strive to be a leader in building a clean, healthy productive industrial complexes based upon best management practices in addition to new environmental technologies and products that provide highly technical jobs.

The Air Force Environment, Safety and Occupational Health team includes many disciplines, from civil engineers to medical professionals to safety experts: a truly cross functional and integrated team. We are using the disciplines of environment, safety and occupational health to assist Air Force managers and operators in improving performance and reducing costs. This professional cross section provides the Air Force the capacity to engineer excess cost out of our systems while improving our performance.

What makes this team unique is its close connection to the workplaces of the Air Force. This is the only team chartered to look at all Air Force workplaces, from the cockpit to the grease pit, and evaluate the impacts of each workplace on the workers and the surrounding environment with the specific mandate to improve productivity, cost-efficiency, and performance by using their skills as force multipliers, not constraints. I firmly believe this team represents a unique force for change that can lead to a more cost-effective and powerful Air Force providing value, performance, and convenience.

While these programs enjoy the highest level of interest, it is our Air Force people in the shops and on the flightline that provide the innovation and aggressiveness that have given the Air Force an unparalleled record of environmental achievement and stewardship. We are putting environment, safety, and occupational health principles into practice and continuing to integrate them into our day to day activities. The momentum we see in the environmental program must be maintained by the continued healthy partnership of support from the executive branch and the Congress, including sufficient funding and continued emphasis to ensure that we are building a new cultural behavior that instills environmental excellence into everything we do. I realize that meeting this challenge is a tall order, and now I'd like to describe for you some of the details of our plan to meet these challenges.

POLLUTION PREVENTION

The Air Force Pollution Prevention program will reduce future pollution and its untoward effects on human health and the environment by reducing hazardous material use and release of pollutants into the environment. It clearly makes good business sense to make the modest investments necessary to engineer hazards out of our weapon systems during their design phase in order to control hazards over the, potentially, 30 year lifetime of the system and avoid the huge costs associated with management of these wastes and materials. Pollution prevention efforts we take today are critical to the Air Force's ability to meet its mission in the future. Pollution prevention is our method of choice to promote safer, more reliable weapons systems that require less maintenance and pose less risk to the health of Air Force personnel.

The Air Force is well on its way to meeting established goals in the areas of hazardous material usage and hazardous and municipal solid waste reductions. Installations have analyzed waste streams to determine where reductions can be made. Processes using hazardous materials have also been analyzed through opportunity assessments, and reductions are being made through projects that eliminate the use of the materials or change the process. Purchase and use of hazardous materials has been reduced from 6,056 tons in 1992 to 3,023 tons in 1995, a 50 percent reduction. Hazardous waste disposal has been reduced 8,400 tons in 1995 from the 1992 baseline, a 35 percent reduction, while municipal solid waste disposal was down 34.8 percent in 1995 from the 1992 baseline, a total reduction of 292,000 tons.

I would now like to outline the Air Force strategy to meet its pollution prevention challenges.

Integrate pollution prevention ethic through comprehensive education, training, and awareness.—In order to accomplish this we must permeate all mission areas with the pollution prevention ethic through comprehensive education, training and awareness. The Air Force has created an Education and Training Master Plan that fully integrates environmental education and training into all career fields to promote pollution prevention awareness in every Air Force civil servant and military member.

Incorporate pollution prevention into all aspects of installation operations.—Pollution prevention is our preferred choice in seeking to obtain compliance with environmental statutes. We are working with regulators and industry to develop ways to design pollution out instead of building engineering controls to minimize pollution after it has been generated. We are also using life cycle cost analysis and return on investment to support pollution prevention projects with long term benefits emphasized over short term gains. Where we can't eliminate hazards through source reduction, recycling techniques will be used to eliminate wastes and the threat of release into the environment. This approach creates improved working conditions, increased productivity, and results in better use of resources through decreased cost and liability.

Institutionalize the pollution prevention approach into all phases of the weapon system life cycle.—We are developing processes that help weapon system program managers fully integrate environmental, safety and occupational health considerations into the production, operation, maintenance and disposal of weapon systems and products. By targeting hazardous materials and the processes using them, hazardous material usage during maintenance of the systems will be reduced.

Our F–15 System Program Office (SPO) in cooperation with McDonnell Douglas Aerospace has proven that effective system development can resolve formidable environmental challenges through the development and transition of pollution prevention technologies. The Air Force's F–15 SPO has integrated new and developing technologies that eliminated virtually all Ozone Depleting Chemicals (100 of 113 operations). Through the institution of pollution prevention into the life cycle of the system, we have also replaced all primers, topcoats, and specialty coatings used at McDonnell Douglas with coatings that meet the September 1998 international aerospace deadline to reduce the use of volatile organic chemicals. These new materials protect our workers, reduce environmental impacts and meet mission requirements.

Develop and transition innovative pollution prevention technologies to the field.—We must build on our past successes in developing innovative pollution prevention technologies to reduce the production and use of hazardous materials in our weapon systems and at our installations. For example, we improved the operational capability of our B–52 fleet by substituting an environmentally friendly and maintenance-free nickel cadmium battery system. The batteries improve our "up" time and avoid costs. We avoid $500 million in expenses over 20 years, and reduce non-operational costs by $500 million by reducing sortie aborts due to failed batteries. Continued efforts of this kind will allow us to avoid unnecessary costs whether they be mission dollars, transactional costs or the costs from time lost due to down time or aborted missions.

Budget request.—For fiscal year 1997, our budget request is $76.6 million. Of this, we are requesting $15.2 million to support the demonstration of technologies and the qualification of commercially available technologies for transfer to field use. The remainder of our request provides funds for on-going efforts to replace ozone depleting chemicals and other toxic and hazardous chemicals currently in use and to maintain the successes of our recycling program.

TECHNOLOGY

Scientific research and technology development are critical to meeting our goal of an Air Force environmental program that costs less, supports readiness and protects our communities. To date our environmental technology program has yielded successes in each of the Environment, Safety and Occupational Health areas, such as the development of a replacement for Halon 1301, the fire-suppressant used on nearly all of our aircraft. The development of a low-weight, more available alternative to the ozone depleting Halon 1301 has enhanced Air Force readiness while allowing us to meet United States international commitments. Technology can also mean more than chemical substitution. By the deployment of robotic paint stripping systems using high pressure water jets in our B–1B and KC–135 depots, the Air Force has reduced hazardous waste by 121,000 gallons annually and significantly reduced the health risks to our worker by nearly eliminating exposure to toxic materials. We need to continue this momentum into the future. Our strategy to accomplish this follows.

Build needs-based program.—New technologies do not benefit the Air Force unless they are used. This means that new technology development must be driven by user-needs. To ensure that our needs are clearly identified and then articulated, the Air Force has developed the Technical Planning Integrated Product Team process. This process provides a mechanism for identifying and then prioritizing the technology needs for the Air Force Environment, Safety and Occupational Health programs. We have developed this process over the past 2 years and at this time have developed an integrated, user-driven approach that lists our environmental technology needs. We will finalize a similar approach for our safety and occupational health programs over the next year.

Leverage non-Air Force resources.—This year we have also taken the step of using this technology needs listing to partner with labs outside the Air Force. I am finding that our integrated priority listing of environmental technology needs is a powerful tool for getting support from other Federal labs. We are now working with several DOE laboratories to find ways to meet the technology needs of both agencies while eliminating duplication of effort. We are also working very hard to build bridges into the commercial and academic sectors, and are working to inventory capabilities and develop opportunities to take advantage on work in progress. As this process matures, we hope to be able to build a market that will support our technology needs at reduced cost and with less risk.

Budget Request.—Across the entire environmental program the Air Force is requesting $54.5 million in the appropriation for technology. It is important to note that $39.4 million of this amount is needed to support the compliance, conservation and pollution prevention efforts at our three test centers: Eglin Air Force Base, Arnold Air Force Station, and Edwards Air Force Base. Any reduction in the funding at these test centers will require the expenditure of operating funds to ensure continued compliance with statutes.

COMPLIANCE

Compliance with environmental laws and regulations is fundamental to the performance of each installation mission. We will not allow pollution to endanger the health and environment of the communities we defend. Sound environmental management precludes fines and penalties that cut into a commander's readiness and operations resource. I firmly believe in sound environmental management that is proactive and integrated—a program that eliminates environmental enforcement actions and emphasizes common sense integration of pollution prevention.

Open enforcement actions for 1995 are down to 67 from the 1992 baseline of 252, a 72 percent reduction. This reduction has occurred as the number of actual inspections has increased. In the Underground Storage Tank [UST] program, 1,754 tanks have been eliminated since the program started in fiscal year 1993, and another 2,503 tanks have been upgraded to meet the 1998 standards, achieving a 63 percent compliance rate for fiscal year 1995. The remaining UST's are on schedule to be eliminated or upgraded by December 1998. Our installations are currently 70 percent free of liquid polychlorinated biphenyls. Partnering agreements have been developed with numerous states, with Texas and Georgia being the most recent. The goal is to have partnerships by the end of 1998 with all states which have Air Force facilities. The following outlines the direction of our compliance efforts in the next few years.

Maintain an aggressive compliance monitoring.—Inspections, communications, and partnerships with environmental regulators and stakeholders are key to eliminating enforcement actions. Effective Environmental Compliance, Assessment, and Management Program [ECAMP] inspections and other assessments identify potential violations and aid the installation in being proactive in resolving them. We see this as a major contributor to our ability to reduce the number of enforcement actions against us.

Build partnerships with our regulators.—Increased partnerships and free and open communications foster greater flexibility, eliminate violations and help installations gain a better understanding of the goals and policies of regulators, especially overseas. As a good stewards of America's trust, both the Air Force and our regulators have a requirement to ensure that our operations do not present unacceptable hazards to human health and the environment. It is time for us to build relationships with our regulators that will allow them to help us achieve compliance by working together. In this regard I fully support the ENVVEST efforts to find new ways to meet compliance requirements.

Develop pollution prevention opportunities to achieve compliance.—Pollution prevention is our first choice to meet current and future environmental compliance requirements. For example, the development team that is designing the Joint Primary Aircraft Training System is designed to be virtually free of harmful substances, reducing both hazards to maintenance workers and eliminating hazardous material management costs for the life of the system. Effective pollution prevention solutions, such as this, will improve the health of our workers and those people living in surrounding communities, enhance mission accomplishment, and reduce compliance costs including fines and penalties resulting from violations.

Budget request.—For fiscal year 1997 the Air Force is requesting $467.5 million to support compliance costs. This funding is needed to maintain operations that ensure continued compliance such as meeting permitting requirements and those actions that are needed to correct situations which are already out of compliance or are estimated to be out of compliance in fiscal year 1997. Our fiscal year 1997 request also includes $51.8 million in military construction funding which continues our underground storage tank and waste water treatment plant upgrade programs.

CONSERVATION

Air Force commitment to conservation protects our natural resources and supports our mission while providing public access to a diverse and sustainable environment. Careful management of our air, land, and water ensure our forces will continue to have access to these resources as we train and operate. This is accomplished through our commitment to protect and enhance our natural and cultural resources, including wetlands, endangered species, and historic sites, through sound stewardship, management, and the continued incorporation of environmental planning into all operations and activities.

Currently, we are inventorying our natural and cultural resources so that we fully identify and understand the resources we are managing. Simultaneously, we are taking management initiatives to protect those natural resources. I'd like to review our inventory scorecard to date followed by an outline of our management initiatives.

Cultural resource inventories are 81 percent complete, while biological inventories are 93 percent complete, and wetlands inventories are 96 percent complete for all Air Force installations as of fiscal year 1995. The overall DOD goals for these inventories were 40 percent, 25 percent, and 40 percent complete, respectively, by fiscal year 1995.

Natural and cultural resource plans for Air Force installations are 80 percent and 70 percent complete respectively, against a DOD goal of completing 60 percent and 50 percent of the plans by fiscal year 1996.

Next an outline of our management initiatives.

Protect readiness through good environmental management.—We will work to ensure natural and cultural resources, wetlands, threatened and endangered species, and historic resources are managed to protect mission readiness. The protection and enhancement of these finite resources shows the Air Force commitment to environmental quality on the 9 million acres of land under its stewardship. Through better planning and more open decision-making that includes ample opportunities for public input, the Air Force will have continued access to the installations, airspace, and ranges required for training and flight testing.

Our most ambitious undertaking in improved environmental management is our project to incorporate decision-making based on the sound principals of conservation. These scientific practices protect the diversity and strength of our natural resources. Using this science, our natural resource managers work in coordination with our operators to maximize both training opportunities and environmental protection. We achieve this with no new costs and no additional bureaucracy.

Reengineer the environmental impact analysis process [EIAP].—The EIAP is the Air Force's implementation of the National Environmental Policy Act, the nation's charter for environmental protection. Through enhanced public participation at the earliest stages of project environmental analysis, many problems can be avoided which tend to add to the cost and length of time for program implementation. By involving project proponents in the analysis of the environmental impacts of a proposed action, environmental considerations will continue to be an Air Force business practice resulting in increased support for our operations from American communities.

Use comprehensive planning for effective installation development.—Comprehensive planning is the "blueprint" for the future layout of all Air Force installations. A well prepared and up-to-date plan provides commanders with a critical long range tool to direct future growth, while allowing for the short term needs of contingencies and mission beddowns. As a part of comprehensive planning, the Air Installation Compatible Use Zone [AICUZ] program addresses the noise impact and accident potential on and around Air Force installations. The primary focus of AICUZ is to prevent encroachment from nearby communities, thus protecting the continued operation of the installation. We will work to complete our inventories and integrate them into the base-wide comprehensive plans to ensure that environmental concerns are addressed as the infrastructures of our bases are developed and modernized.

Budget request.—Our fiscal year 1997 budget request is $43.6 million. This funding is needed to fully support the development of Environmental Assessments and Environmental Impact Statements as required under the National Environmental Policy Act in addition to providing for continued development of our natural and cultural resource plans and inventories.

CLEANUP

To date, the Air Force has spent $3.1 billion on cleanup and has approximately a $6.1 billion requirement left to clean up all remaining sites. The estimated program completion date is 2034, due to the cleanups required at our largest logistics centers. The Air Force has closed out over 1,600 sites, and still has approximately 2,600 active sites.

There are several changes occurring in the Environmental Cleanup Program to make it more effective and more efficient. We are moving to ensure that our limited resources continue to be efficiently used by implementing the relative risk concepts. The relative risk approach will allow for increased efficiency in the execution of our program by focusing on the "worst first." We are also continuing to build strong long-term relationships with our stakeholders by expanding the use of our Restoration Advisory Boards [RAB's]. I will now address the initiatives that we are taking to enhance the effectiveness and the execution of our cleanup program on active bases.

Relative risk.—In 1995, the Department of Defense instituted a program of determining the relative risk to human health and the environment of every contaminated site to focus on cleaning up the worst sites first. This allows us to meet our legal obligations in partnership with our regulators and community partners using a simple model to evaluate potential risk to human health from pollution. By using a consistent method to determine the relative risk of every site, the sites can be sorted into three categories—high, medium and low—all having the same meaning for each major command and installation across the United States.

Public involvement through restoration advisory boards.—Our public involvement efforts have been successful. In the past, environmental cleanup has suffered from a lack of trust from the public and the Congress. As the Air Force has moved strongly from a program of study to actual construction of remedies, Congress and the public have demanded more involvement in the process to ensure cleanup actions are really protecting human health and the environment. One of the biggest changes in public involvement is through Restoration Advisory Boards [RAB's] which have been formed at 96 of our 107 active installations, including the Air Guard and Reserves, where the local communities have shown an interest in participating. The RAB members come from all walks of life in the local community and participate in document reviews and discussions on prioritization of work. The RAB members receive training in developing relative risk rankings, the government budget process, new technologies to more efficiently clean contaminated sites, and other issues necessary to understand how the process works. The RAB members represent the people who are impacted by the contamination and have to live with the decisions. An educated public helps to introduce a fresh perspective into our cleanup program that is different from that of the Air Force and our regulators. The better educated the public is on the process and the threat from the contamination, the better advice they can provide to the installation on how their tax dollars should be spent. The partnership between the services and stakeholders can also serve to speed up the cleanup process and get community buy in on cleanup decisions. Communities are then more likely to view the Air Force as a good neighbor and continue to support our presence in their communities.

We must build on the successes that we have achieved and are defining a role for the RAB's that will allow their inputs on cleanup priorities to be visible in our budgeting process. This will allow our partners better visibility on the constraints of the program which will lead to more effective use of the limited resources available.

Build a schedule to cleanup Air Force contamination.—The RAB's are the most important advance in the cleanup program. They are the human technology that is transforming cleanup into an effective and budget sensitive program. RAB's will save more money and improve our cleanup credibility more than any other advance in our cleanup program. The small amount of money required to fund the citizen volunteers is an excellent investment of taxpayers dollars. For fiscal year 1997 we have requested $1.4 million to support the administrative costs to establish and maintain these crucial partnerships between your constituents and the Air Force.

The Air Force is further refining its schedule to complete the program which implements the fiscal year 1996 evaluation of the cost to cleanup the Air Force. The Air Force knows the scope of the program, where we are today, and where we need to be in the future. Now, by emphasizing relative risk, the Air Force can build a refined schedule to complete the program that will provide both us and our cleanup partners with a powerful tool for ensuring that our cleanups are completed in a timely and cost-effective manner. As our relations with regulators and our communities become more cooperative, all sides can work together to define a schedule of actions that will maintain steady program progress and remain fully protective of human health and the environment.

Gain efficiencies through technology.—The Air Force is pushing new answers to clean up our old problems. We have made great strides in technology to determine better methods to clean up the environment and in understanding how to avoid future problems.

Our first broad success was bioventing which is now in use at 136 sites on active bases nation-wide. Recent advances have resulted in natural attenuation being accepted as the best way to remediate some sites. By proper monitoring of the contamination, we have been able to show that some types of contaminants are cleaned up better by natural biology than we can do with chemistry. In some cases this has lowered the cost to remediate a site by an order of magnitude or more. This technology may be applicable to 25 percent of the petroleum hydrocarbon contaminated Air Force sites requiring treatment (500+ sites); total savings to the Air Force is estimated to exceed $2 billion.

We are also investigating established cleanup standards to ensure we are not spending more than is required on some sites to reach those levels which protect people and the surrounding ecology. These efficiencies and savings allow work to be done on other sites and move the entire program towards earlier completion. This is a significant part of our effort to bring sound science to environmental decisionmaking. By engaging in national discussions on the cleanup standards for trichloroethylene and petroleum, oil and lubricant cleanup, we are beginning to develop information that indicates these contaminates do not need to be cleaned up to levels as stringent as previously thought.

Maintain stable funding.—The continued success of new technologies and the new partnering initiatives with the regulators and the public are dependent upon stable funding for the environmental cleanup program. We are building a schedule for the program with the participation and buy-in of the public and the regulators. We must deliver on the promises being made. This can only be done by maintaining stable funding for the environmental cleanup program. If the public or the regulators lose faith in the Air Force's commitment to clean up the environment, they will leave the partnering process and resort to issuing Notices of Violation and Consent Decrees with stipulated fines and penalties for noncompliance.

Budget request.—We are asking for $414.7 million for fiscal year 1997. Of this request $26 million will be used to fund studies and $340 million for construction of remediations. In addition, $3.7 million will be used to fund activities under our Defense State Memorandums of Agreement [DSMOA] program. We believe that this is worth much more than the one percent cost to the cleanup program in terms of return on in investment. With Congressional authorization, we intend to pay $640,000 in fines and penalties in fiscal year 1997. In terms of relative risk, $287 million will be used to fund activities at high risk sites and $60 million will fund long term operating costs at sites which have remedies in place and operating.

BASE CLOSURE

As the Air Force approaches the next millennium, it is well on the way towards shedding the excess infrastructure that resulted from the end of the Cold War. Since the first base closure rounds, we have been working closely with our communities to implement the President's Five Part plan to minimize the economic impacts of the closure. The Air Force base closure cleanup program supports this goal by ensuring that properties can be transferred safely into economic reuse. Although we have made use of leases to accelerate the economic reuse of property, our intent is to transfer all of our properties by deed. We continue to successfully support our impacted communities and fully 47 percent of the available properties are currently in reuse through leases and deeds. I am proud of the hard work our base closure environmental team has done to ensure that properties will be ready for transfer. Now I'd like to highlight the initiatives we are working on to continue this excellent progress.

Remedies in-place at rounds I through III bases by 2000.—A major milestone on the way to deed transfer of properties is the installation of a cleanup remedy that is acceptable to our regulators and communities. Our goal is to have remedies in place at all 26 bases in Rounds I, II, and III before 2001. This includes 13 bases on the National Priority Listing [NPL].

Accomplishing a cleanup of this magnitude in just twelve short years is clear evidence of the capabilities and dedication of our base closure personnel and the kind of impacts that open and effective partnerships with our regulators and communities can have. At March AFB in California this partnership has reduced the cleanup costs at one site from $9 million to just $1 million for fiscal year 1996. This same team is now working to further reduce costs and accelerate the cleanups.

Accelerate deed transfer of property.—Pease AFB in New Hampshire today has all of its remedies in place and operating and we are working in concert with our regulators to develop procedures for meeting our responsibilities under Section 120(h)3 of the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] and gain regulator certification that our remedies are operating properly. Once this certification is obtained, we will be able to transfer by deed our properties into civilian reuse. The certification process is new for both us and our regulators, and we are now working with them to define this process. We hope that a consistent nation-wide approach can be found that will enhance our ability to achieve certification. Shortly after we receive certification, I expect significant deed transfers of our properties to occur. We could have more than 60 percent of our properties transferred by deed within 5 years of putting our remedies in place.

Complete remediations to reduce operating costs.—At the same time, we are working to define the parameters which will allow us to declare that our cleanups are complete and close our sites. This will serve to reduce the costs of operating and monitoring our remedies, typically the largest part of the cost to cleanup a site.

Apply lessons learned to reduce the costs and time to cleanup round IV bases.—We are now applying the lessons learned from these efforts to the challenges presented by our Round IV bases. This Round of closures includes two depots, McClellan AFB in California and Kelly AFB in Texas, that have some of the most complex and difficult cleanups in the Air Force. The challenge is to find a way is to leverage our previous cleanup work to allow for a smooth privatization of these bases in the minimum time possible. We have already begun with a recently completed in-depth peer review of the programs at these bases. The panel that reviewed these programs included regulatory, commercial, and Air Force cleanup experts who reviewed each project for technical feasibility and appropriateness. This review has resulted in some recommendations for the cleanup programs at these bases which promise to reduce our costs and time to accomplish cleanup.

OCCUPATIONAL SAFETY AND HEALTH

While the Secretary's and the Chief's goals help guide our efforts, the actual execution of our occupational health and safety program is based upon three aspects of risk: risk avoidance, risk assessment, and risk management.

While risk avoidance is the preferred approach, when risk avoidance isn't possible, such as when maintaining many of our older weapons systems which were not designed with the health of our maintainers in mind, then accurate risk assessment and risk management are imperative in order to adequately protect our people. We are moving out on new initiatives in risk assessment and risk management in both the occupational and environmental health fields. We are developing training for all Air Force personnel to use simple, straight forward techniques to quickly assess situational risks that they may encounter so that they may make intelligent, informed decisions as to whether it is safe to proceed in light of the gains to be made. We anticipate this effort will result in reduced numbers of mishaps and enhanced protection of resources, both human and environmental.

As a result of an effective occupational health program, Hill AFB was able to initiate a process throughout Air Material Command to save over $31 million in compliance costs associated with implementing the new OSHA cadmium standard 2 years ago. This was accomplished through comprehensive industrial hygiene assessments that demonstrated most of our workers were not in fact exposed above the action limit. Without such a program to adequately assess workplace hazards, protect the health of Air Force workers, and enhance worker productivity, our installations would have to address the potential for elevated occupational illnesses and injuries contributing to overhead and weapon system life cycle costs well above current levels.

But our goals are not just reduced risks and costs. We also strive to enhance performance which is reflected by increased efficiency and productivity. The capabilities of our weapon systems are in some cases beginning to challenge the physiologic capabilities of our pilots. Very high task loads and sustained acceleration are two of important occupational stresses that present challenges for performance and occupational safety for our air crews. For example, high performance combat aircraft are capable of sustaining 9 G's during combat maneuvers but most pilots can only sustain 9 G's for a brief period of time. While subject to such forces, they are capable of doing little else but fly the aircraft. The Human Systems Center of the Air Force Material Command is currently working on solutions to allow our pilots to withstand these the high G forces for longer periods of time and to also permit them to perform a wider variety of cognitive functions while doing so. Such applied research performed by Air Force personnel in Air Force laboratories will provide our pilots with that crucial advantage necessary to fly, fight, and win.

The Air Force School of Aerospace Medicine in San Antonio, Texas has determined that between 1991–1995 we lost 35 aircraft, at a cost of $400 million, due to pilot task overload and spatial disorientation. Task management training and spatial disorientation demonstration are other examples of where our occupational health program can enhance the capabilities of our air crews. To help avoid these losses this same organization has developed a spatial disorientation simulator which will be used to teach our pilots to deal with the problem at a cost of $18 million to cover the needs of all our pilots. Crew resource training programs and spatial disorientation simulators developed by Air Force human factors specialists will permit all Air Force pilots to obtain the training necessary to more effectively react to combat scenarios as well as in flight emergencies. Such training has the potential of saving many valuable lives and billions of dollars in equipment associated with the loss of aircraft.

To counter the rising number of work-related disorders such as back injuries and carpal tunnel syndrome and the costs associated with them, the Air Force committed $4.3 million in fiscal year 1995 toward development, validation, and implementation of a comprehensive ergonomics program. In coordination with the USAF Armstrong Laboratory and the USAF School of Aerospace Medicine, this multi-contractor effort will help our occupational health professionals identify those workers at increased risk for musculoskeletal disorders, train our workers on the prevention of these disorders, and implement the necessary controls to eliminate or reduce the risks associated with ergonomic hazards. Based on experience in private industry, we believe this effort has the potential to reduce the incidence of work-related musculoskeletal disorders in the neighborhood of 50 percent.

CONCLUSION

The Air Force is committed to an environmental program that works better, cost less and maintains our freedom. The proactive strategies and strong leadership in the Air Force environmental program significantly enhance the environmental quality at our installations and surrounding communities.

The three environmental, safety and occupational health principles are working in concert to achieve a fully integrated and functional Air Force organization that embodies strategic partnerships, sustains and enhance readiness, and meets the needs of the American public. In the past we were reactive, we are now proactive and instituting an integrated environmental, safety and occupational health program throughout the Air Force. Through this effective integration we provide a program that makes sense, increases productivity, decreases cost, and is good for America.

To ensure our leadership and commitment to attaining results, we will continue to emphasize funding as a critical barrier to future progress in meeting the environmental regulations and goals, and, more importantly, setting the standard for a new civilization that incorporates the environment into our daily lives.

BIOGRAPHICAL SKETCH OF RODNEY A. COLEMAN

Rodney A. Coleman is Assistant Secretary of the Air Force for Manpower, Reserve Affairs, Installations and Environment, Washington, DC. He is responsible for the management and policy of all matters pertaining to the formulation, review, and execution of plans and programs for Air Force manpower, military and civilian personnel, Reserve and Guard forces, installations, environment, safety and occupational health, medical care and counterdrug activities. He assumed this position April 14, 1994.

Mr. Coleman was born October 12, 1938, in Newburgh, NY. He earned a bachelor of architecture degree from Howard University in 1963, and was commissioned as a second lieutenant through the Air Force Reserve Officer Training Corps program.

He served on active duty from 1963 to 1973, attained the rank of captain and compiled a distinguished career as an Air Force civil engineering officer. During his Air Force career, he was directly responsible for the design and construction management of military facility projects valued in excess of $10 million. Among the numerous projects Mr. Coleman was involved in during his military career was serving as the project architect for the million dollar renovation and addition to the prestigious Bolling Air Force Base Officers' Club, the largest Air Force officers club in the world.

Mr. Coleman is the recipient of the Bronze Star Medal, Republic of Vietnam Technical Services Honor Medal-First Class, Meritorious Service Medal, and Air Force Commendation Medal. He also served as an augmentee officer-in-charge of the elite U.S. Air Force Honor Guard. In 1970 he was 1 of 17 individuals appointed by the President as a White House fellow, and served as a special assistant to the Secretary of the Interior.

After separating from the Air Force, he was appointed executive assistant to the chairman of the District of Columbia City Council. From 1978 until 1980 he was an architectural design consultant to the Pennsylvania Avenue Development Corporation, Washington, DC. He joined General Motors in 1980 and served successively as director of government relations, as director of municipal government affairs, and as executive director of urban and municipal affairs. Among Mr. Coleman's responsibilities during his GM career was coordinating the government relations activities with local governments incident to the largest plant closing and consolidation activity in the company's history. More than 30 GM facilities were closed throughout the country during this rationalization process.

Mr. Coleman has two children, a son, Stephen, and a daughter, Terri.

STATEMENT OF CHERYL A. KANDARAS, PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE NAVY (INSTALLATIONS AND ENVIRONMENT)

Senator INOUYE. Now may I call upon the Principal Deputy Assistant Secretary of the Navy, the Honorable Cheryl Kandaras.

Mrs. KANDARAS. Thank you, Senator Inouye and distinguished members. Thank you for the opportunity to present our Department of Navy environmental program. This program has become an integral part of our central deterrence and war-fighting missions. It satisfies our legal requirements and cements our role as a good neighbor to the community in which we work and live.

The environmental program protects the Nation's future health and welfare, and it increases readiness by improving some of our operational and maintenance processes with pollution prevention programs.

Our fiscal year 1997 budget cleans up past contamination, complies with current standards, conserves our natural resources, and invests in pollution prevention and technology. It also includes environmental programs at our closing bases.

NAVY ENVIRONMENTAL BUDGET

Perhaps the most important piece of information I bring you today is good news, and that is that we have stabilized our environmental budget. The $1.7 billion budget is $100 million less than last year's $1.8 billion budget. We believe this is due to the maturity of this program and the good management of the growth.

We are beyond the early years, where every time we turned over the proverbial rock we found an unexpected multimillion problem. Instead, we have brought definition to the program, and have designed a stable funding profile to meet environmental goals over the next several years.

My written statement discusses specific policy and budget issues, but I wish to bring two policy issues to your attention this morning. The first is the devolvement of DERA. Up until now, the Department of Defense's DERA fund has provided the central source of funds for cleanup. Unlike most other major programs, the Department disbursed the appropriation for execution by the services.

The Department of Defense has submitted a proposal to devolve or decentralize DERA. This was done after a study by the Deputy Under Secretary of Defense for Environmental Security. In line with this recommendation, our budget is proposed in the "Environmental restoration, Navy" account.

We strongly support this move and, although it is a major change for us, it will not affect congressional visibility or oversight of the cleanup program. What it will do is add to the management scrutiny, responsibility, and authority by our program and budget offices.

We believe this is a positive step. In reality, the services have always paid for DERA. With devolvement, the funding decisions and their full impact is back where it belongs. We would greatly appreciate your support for devolvement.

BRAC FLOORS AND CEILINGS

The second issue is BRAC environmental floors and ceilings. In the past, Congress has imposed limitations on the environmental account in base closure. These floors and ceilings have complicated our ability to meet the changing needs at these closing bases.

Although we do a fairly accurate job of projecting BRAC environmental requirements, the complexity of BRAC, coupled with keeping pace with all of the local reuse authorities, requires flexibility.

As important as closing the base is to us for the reason of reaping operational savings, so, too, is the pledge we have with the communities we are saying goodbye to, to do our part in putting them not only economically but environmentally back on their feet. We would ask for your support in placing neither a floor nor a ceiling in these accounts.

Before concluding, I would also like to mention one program of great significance to us, and that is our shipboard solid waste program. Pending final environmental documentation, we intend to install what we call our pulper-shredder on our ships for the management of the shipboard solid waste program. We would ask for your support in those areas as well.

Our environmental program supports readiness, satisfies our legal obligations, and sustains our civic role to protect the Nation's health and welfare. As detailed in our statement, we are implementing a new approach to clean up past contamination based on devolvement and the use of risk management to set priorities under a stable funding profile.

Our compliance program allows Navy and Marine Corps activities to meet current Federal, State, and local environmental standards at a minimum cost. Our pollution prevention efforts meet compliance needs by cutting pollution at the source, improve readiness, and lower cost.

Our conservation program ensures continued operational access to these areas, and preserves a natural and cultural resources for our bases.

Our technology program provides innovative new solutions for environmental challenges, and our efforts at base closure locations are designed to expedite cleanup and speed community reuse of property.

PREPARED STATEMENT

Most significantly, we are taking steps to control cost. For the first time since identifying an environmental budget, our request is less than the one requested for the previous year.

That concludes my statement, and I would welcome any questions you may have.

Senator INOUYE. Thank you very much, Madam Secretary.

[The statement follows:]

PREPARED STATEMENT OF CHERYL A. KANDARAS

Mr. Chairman and distinguished members of the Committee, I am Cheryl A. Kandaras, Principal Deputy Assistant Secretary of the Navy for Installations and Environment. I am pleased to appear before you today to talk about the Department of the Navy's environmental program.

My statement today covers three broad areas: a brief review of why the environmental program is an important and integral part of our national defense mission; an overview of our fiscal year 1997 budget request, and a description of the funding changes from the current fiscal year 1996 program; a more detailed discussion of specific aspects of our environmental program.

Throughout this statement, I hope to show you how we are using environmental funds to support the Department of the Navy's central mission: providing our Nation with potent, combat-credible naval expeditionary forces ready to fight and prevail at key forward-deployed regions around the world.

WHY AN ENVIRONMENTAL PROGRAM

Sometimes it's important to reflect upon why we invest in certain programs. Like most large corporations, we invest in an environmental program for a number of reasons. We believe that our environmental program is an integral part of our central deterrence and war fighting mission, that it satisfies our legal obligations, and that it sustains our civic role to protect the Nation's future health and welfare.

We recognize that restraints on our access to the oceans of the world or to training areas ashore because of a breach of environmental standards would have a profound, immediate, and serious impact on our military readiness. Our failure to meet an environmental standard can halt a training exercise or shut down equipment maintenance processes, integral parts of unit readiness. That is why we take the steps necessary to ensure that our operations on land, at sea, or in the air comply with all applicable environmental laws and why we promote environmental objectives in tandem with naval operations.

We have also found that our environmental investments in compliance and pollution prevention programs can actually increase readiness by improving our maintenance processes.

Environmental investments shorten maintenance cycles, reduce cost, improve reliability, and reduce air emissions, hazwaste generation.

Like the environmental programs of corporate America, ours mirror the greater attention environmental issues have had at the national, state, and local levels over the past two decades. Congress has enacted over 40 environmental laws since 1970 that impact private industry and the federal government. These laws are substantially amended and tightened during re-authorization. Further, each state enacts its own environmental statutes and implementing regulations which can be more stringent than federal requirements. This legislative growth has created an increasing need for people, and for projects, to meet the new standards. The result for both private industry and the Navy has been a need to change the way we do business, and to make significant new investments to meet tighter environmental standards. Failure to comply with environmental statutes and regulations can result in fines, penalties, criminal and civil suits, administrative proceedings, court orders, cease and desist orders against the Department of the Navy, or our people. In short, environmental compliance is the law of the land and of the sea, and we must obey.

Beyond the strict interpretation of the law, I also believe we have an ethical responsibility to protect the natural resources entrusted to us. We are the users, managers, and protectors of a significant portion of the Nation's most ecologically important lands. Our area of operations includes the global air, land, marine and estuary environments. We must ensure that future generations inherit a healthy ecosystem that can sustain development.

Although this growth attests to our efforts to characterize and comply with all legal environmental standards, I can assure the Committee that the Department of the Navy is looking for ways to control costs. We strongly support the need to balance environmental costs and benefits, to use the most cost-effective means to attain compliance, and to use risk management to help prioritize investments. We have been using just such an approach in working with the Deputy Under Secretary of Defense (Environmental Security), the other military components, and other stakeholders such as regulators, industry representatives, environmentalists, and community groups.

Our fiscal year 1997 environmental budget reflects the success of our approach:

FISCAL YEAR 1997 ENVIRONMENTAL BUDGET OVERVIEW

The Department of the Navy's fiscal year 1997 environmental budget funds cleanup of past contamination, compliance with current environmental standards, conservation of our natural and cultural resources, investments in pollution prevention and technology development. It also includes environmental programs for four rounds of base realignment and closure [BRAC].

DEPARTMENT OF THE NAVY FISCAL YEAR 1997 ENVIRONMENTAL BUDGET

[In millions of dollars]

	Fiscal year—		
	1995	1996	1997
Cleanup	404	362	303
Compliance	714	911	759
Conservation	13	29	30
Pollution prevention	88	130	151
Technology	59	74	58
BRAC	285	297	400
Total	1,563	1,803	1,701

I believe we stabilized environmental budgets within the Department of the Navy. Our fiscal year 1997 environmental budget of $1.7 billion is more than $100 million below our fiscal year 1996 appropriated level of $1.8 billion. This is a very significant change. The Department of the Navy environmental budget has nearly doubled in size since we first identified it nearly 5 years ago as a part of the overall Department of the Navy budget. And as this committee recognizes, this growth in the environmental program has come at a time when the overall Department of the Navy budget has been cut by 16 percent over the same period.

Although I will discuss specific budget and policy issues later in my statement, I wanted to give you a "big picture" view of where we are going on overall environmental funding.

Stabilized cleanup funding

We have stabilized cleanup funding at about the $300 million level for fiscal year 1997 throughout the Future Years Defense Plan [FYDP]. This funding level reflects the Department of the Navy's share of the Defense Environmental Restoration Account funding as it was devolved to us by the Secretary of Defense. I will discuss devolvement later. We have neither added money nor taken any out. We have, however, taken numerous steps to live within this level of funding. We believe that this level of funding will protect human health and the environment, allow us to better focus funding on actual cleanup of contaminated sites using relative risk management, and ensure consistent and predictable funding levels in the future.

Reduced environmental compliance funding

Several factors contribute to the $151 million reduction in compliance funding. First and most importantly, we are attaining operational closure on many of our larger bases under the Base Realignment and Closure, BRAC, process. By operational closure, I mean that all mission equipment, military and civilian personnel have been disbanded or relocated to the "receiving" location, the military mission at the base has ceased, and the commanding officer has ordered the flag lowered for the last time.

DEPARTMENT OF THE NAVY FISCAL YEAR 1997 ENVIRONMENTAL COMPLIANCE

[In millions of dollars]

	Fiscal year—		Change
	1996	1997	
O&M	514	417	−97
Procurement	104	135	+31
MILCON	115	34	−81
DBOF	161	146	−15
RDT&E	14	7	−7
Total	908	739	−169

At the end of fiscal year 1995, the Department of the Navy had completed 86 of the total 178 closures and realignments required under the 1988, 1991, 1993, and 1995 rounds of base closure. This year and next will be our largest years of activity, as we plan to complete an additional 30 closures and realignments in fiscal year 1996, and 28 more in fiscal year 1997. Many of these will be major BRAC 93 actions. For example, in the last month we closed Mare Island Naval Shipyard in Vallejo, California and Charleston Naval Shipyard in Charleston, South Carolina.

After operational closure, the base is effectively closed. We save operating expenses, including environmental costs, by no longer needing to handle and dispose of hazardous waste; maintain operating permits for clean air, clean water; employ an environmental staff; incur sampling and testing cost; or implement one-time projects to attain compliance.

The Navy has for the past several years used an environmental requirements planning guide or "cookbook" to help our base commanders identify what needed to be done, and when it needed to be done to attain compliance with federal, state and local environmental standards. This helped to foster greater awareness of specific compliance standards, and to identify budget requirements to meet those standards. These budget requirements have in many cases now been satisfied. This is not to say that we do not have a continuing need for one-time compliance projects. To the contrary, new environmental statutes and implementing regulations continue to be promulgated at the federal, state and local level. Nonetheless, we feel we have stabilized.

We are also seeing fewer large pollution abatement projects in the Military Construction, Navy appropriation. For several years, we have budgeted for expensive, major replacements and upgrades for our wastewater and industrial wastewater treatment plants. For example, our fiscal year 1996 Military Construction budget included a $46 million wastewater treatment plant at Marine Corps Base, Camp Lejeune, North Carolina and a $16 million wastewater treatment plant upgrade in Guam. We have completed most of these upgrades and replacements. We have 6 environmental construction projects totaling $34 million that are required to comply with Class I environmental standards in the fiscal year 1997 budget, compared to 8 projects totaling $115 million last year.

I also believe we are reaping the benefit of investments we have made in pollution prevention. These investments not only helped us achieve compliance, but they have also reduced mission costs and environmental costs.

Of course, not all portions of the compliance budget are shrinking. There is a $30 million increase in Other Procurement, Navy, to support procurement and installation of shipboard plastic waste processors for surface ships. But overall, our efforts have allowed us to reduce the compliance budget by over $150 million in fiscal year 1997.

Continued emphasis in pollution prevention

The $23 million increase is primarily in the Operations and Maintenance accounts and the Other Procurement, Navy account to support hazardous material reduction initiatives and hazardous waste disposal initiatives. This increase reflects the Department of the Navy policy to invest in pollution prevention as the preferred means of attaining compliance with environmental standards.

Technology

The $16 million reduction is due to the completion of projects supporting shipboard ozone depleting substances, integrated liquid waste management, and solid waste management technologies.

BRAC

BRAC is the one area of our budget with significant growth—nearly $100 million in fiscal year 1997. This growth is primarily attributed to BRAC 93, and efforts to perform the necessary compliance actions for closure, such as removing or closing underground storage tanks; closing hazardous waste accumulation areas and storage facilities; performing radon, asbestos, lead-based paint assessments; and cultural and historic preservation surveys. It also supports increased funding for cleanup during and after operational closure of the installation.

Other sources of environmental funds

The environmental program benefits from several other sources of funds, including the Strategic Environmental Research and Development Program, and the Defense Environmental Security Technology Certification Program. Revenues generated from agricultural leasing and timber harvesting support natural resource management programs on our bases. Recycling revenues from the sale of cans, bottles, and newsprint sustain recycling programs on our bases and reduce solid waste disposal costs, while recycling profits can fund recreational and environmental projects.

I will now discuss specific aspects of our program. Although I will talk about the cleanup, compliance, conservation, and pollution prevention programs individually, they are often mutually supportive.

DEPARTMENT OF THE NAVY ENVIRONMENTAL RESTORATION SITE STATUS AS OF SEPTEMBER 30, 1995

	Active bases	BRAC bases	Total
Response complete	929	82	1,011
Remedy in place	30	4	34
Study underway	1,358	581	1,939
Cleanup underway	180	32	212
No current action	989	103	1,092
Total	3,486	802	4,288

Cleanup

The Installation Restoration Program, more commonly called the cleanup program, is designed to discover, investigate, characterize, and clean up contaminated sites on Navy and Marine Corps installations. Two federal laws are the primary drivers: the Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, as amended by the Superfund Amendments and Re-authorization Act [SARA] and the Resource Conservation and Recovery Act, or RCRA, which includes cleanup from leaking underground storage tanks [UST's]. Since the Department of the Navy cleanup program began in 1980, we have examined nearly 300 Navy and Marine Corps installations and identified over 4,200 potentially contaminated sites at active and BRAC locations. Through preliminary studies and investigations, we have been able to "close out" 1,045 sites as being Response Complete, or Remedy in Place. We have been performing studies or actual cleanups at two-thirds of the sites at active bases and BRAC bases. Due to funding constraints, execution concerns, and other reasons, a total of 1,092 sites were awaiting future studies or cleanup actions. The primary contaminants found on our installations are, in order: Petroleum products, solvents, heavy metals, and PCB's. The estimated cost to cleanup all non-BRAC bases is $5.8 billion. However, we are actively working with regulators and stakeholders to bring this cost down.

Devolvement

Funding for the cleanup program has in the past come from the Defense Environmental Restoration Account [DERA], the Defense Department's equivalent to the EPA "Superfund." Once authorized and appropriated, DOD transferred our share of DERA into the Department of the Navy appropriations (usually Operations and Maintenance, Navy) for execution by the Naval Facilities Engineering Command and its Engineering Field Divisions for both Navy and Marine Corps installations on U. S. territory.

The Department of Defense has submitted a legislative proposal with the fiscal year 1997 budget submission to "devolve," or in other words, decentralize DERA to the Military Services. This action was taken after considerable study and evaluation by a working group chaired by the Deputy Under Secretary of Defense for Environmental Security [DUSD-(ES)], the participation of the Services, and after much discussion at the Senior levels of the Services and the Office of the Secretary of Defense. The Department of the Navy's share of the DERA cleanup budget is included under a proposed new "Environmental Restoration, Navy" appropriation.

The devolution of DERA is a major change in how restoration funds are managed within the Department of Defense. However, even though legislation is needed to fully implement it, it will have no impact on Congressional visibility or oversight. The additional management scrutiny, responsibility and authority by Service program and budget offices will strengthen the program.

The scope, funding levels, management direction, and relationship with regulators have changed significantly since the enactment of CERCLA, as amended by SARA. Prior to CERCLA, we had little knowledge of the nature and extent of contamination on our bases, how much it would cost to clean up, and how long it would take. Today's cleanup program is far different. We are budgeting requirements based on a stable funding level, prioritizing projects with a risk management approach in consultation with communities and regulators. Stable funding and risk management are essential for effective and efficient program management.

We believe we have identified virtually all of our major contaminated sites and have completed or have underway analyses at 72 percent of those sites. However, regulators using the RCRA Corrective Action Program continue to identify and add sites to our program. Many of these RCRA "Solid Waste Management Units" are areas with distressed vegetation, small rubble piles, and stains from vehicle parking. At some installations this approach has dramatically increased our site count with low risk or no-risk sites that we must still spend time and money to investigate and track.

Department of the Navy total SWMU's

Fiscal year:	
1993	498
1994	833
1995	808

On a more positive note, we plan to spend over 70 percent of our fiscal year 1997 budget request on actual site cleanups, not studies. We have moved from an adversarial climate to a cooperative one by partnering with regulators and the communities and openly sharing with them the results of our studies and proposed cleanup solutions. Stakeholder participation through our Restoration Advisory Boards and formal partnering agreements with regulators have proven very successful. These initiatives have provided an unprecedented level of oversight, advice, and teamwork at the installation level. We have empowered our field managers to work closely with stakeholders and make cleanup decisions. This "bottom up" requirements identification and oversight has negated the need for a centralized DERA account. A decentralized approach is the most efficient and cost-effective method to achieve our program goals

The DERA budget request grew enormously between fiscal year 1984–fiscal year 1994 peaking at $2.4 billion. This unconstrained program growth has come under scrutiny both within the Department of Defense and by the Congress, which has successively cut funding in each of the last 4 years to the $1.4 billion level appropriated in fiscal year 1996. We are implementing risk management to better prioritize our cleanup effort, instead of relying on the mere existence of signed legal agreements to drive funding requirements as we did in the past. And we are an ardent supporter of stabilized funding at current levels. We are working to revise previous agreements accordingly.

Benefits of devolving DERA

The time is right to devolve DERA to the Military Departments. While the intent may have been that DERA not compete with funding for current mission needs, it has always competed at the DOD level. The DOD has a fixed top line budget, and DERA has always been a portion of that budget request. Any decision to increase DERA funding came at the expense of other DOD programs, impacting Service budgets without direct Service participation. Devolution brings DERA requirements and funding decisions within the Services where it belongs. There are numerous benefits to this approach:

Aligns responsibility, accountability, and funding.—The Services have always executed the program and been accountable for performance, but had no direct control over program and budget decisions. Devolvement aligns accountability, responsibility, and funding together under each of the Services. It makes requirements identification and resource decisions for environmental restoration an internal, not external decision. The Services now have an incentive to consider affordability prior to signing agreements with regulators promising future restoration actions DUSD(ES) retains policy and program oversight.

Provides early access to restoration funds.—Currently, authorization and appropriation changes to budget amounts go through a lengthy allocation process within OSD before fiscal year funds are distributed to the Services for execution. It has not been unusual to receive initial fiscal year funds four months or more after the fiscal year began, creating a cash flow problem within the Services. Service restoration accounts will speed up distribution of funds at the beginning of the fiscal year, allowing earlier obligation of funds and a more balanced program execution through the fiscal year.

Allows full competition of restoration resource needs within the services.—Restoration funding has always competed for Service funding at the OSD level. With devolvement, restoration funding decisions and program impacts are first fully vetted through the Service chain of command. Flag officers will be just as knowledgeable about environmental restoration as they are about other programs.

Integrates environmental restoration into the full planning, programming and budgeting system used throughout DOD to make resource allocation decisions.—Because DERA was an OSD account, restoration requirements were not scrutinized outside the Services' environmental offices. With devolvement, environmental restoration is treated like every other Service program. POM and budget managers within the Services now review restoration resource requirements and execution assumptions. We have already seen the benefits of the Navy's POM and budget offices applying their considerable management skills to the restoration program.

Devolvement means that environmental restoration will be afforded the same level of OSD oversight as every other Service program. The Department of the Navy was the first to advocate the concept of devolution. As a result of devolvement, we have integrated our environmental restoration requirements into the same rigorous assessments all other Navy and Marine Corps programs undergo. The results of those assessments are being reviewed by the senior military and civilian leadership of the Department of the Navy. We are building a corporate understanding of the need to continue to cleanup contamination from past practices, and there is strong support within the Department of Navy for maintaining stable funding for this program.

More cleanup, less study

I am very proud of the performance of our cleanup program in the last year. We continue to execute larger portions of our DERA budget on actual "shovel in the ground" cleanups while limiting the amount of money spent for studies and management. We have accomplished this by early identification of cleanup opportunities, use of our cleanup contracts, and the cooperation and support of regulators and the community. That is not to say that we can do without studies. Studies are an integral part of the cleanup effort, not just some paperwork shuffling. We must first understand the types, locations, and severity of the contamination, as well as the geophysical characteristics of the site before we can act to remove it. Thorough preliminary investigations can prevent unnecessary cleanup expenses. The 80 percent cleanup goal included in the Fiscal Year 1996 Defense Authorization Act does not leave us with enough flexibility. And although we could approach the 80 percent mark if required in the short term, we could not sustain it. We would very quickly find ourselves lacking sufficient factual information on site characteristics to make the most cost effective decision on whether or not to proceed to actual cleanup, and if so what remedy and technology to apply. The bottom line is that our goal should be safe close-outs of sites, not necessarily cleanup.

DEPARTMENT OF THE NAVY PERCENT CLEANUP VERSUS STUDY

	Cleanup	Study	Management
Fiscal year:			
1991	13	72	15
1992	14	74	12
1993	37	48	15
1994	50	39	11
1995	59	30	11
1996	60	29	11
1997	72	17	11

Partnering

We have made partnering with federal, state, and local regulators a cornerstone of our cleanup program. Partnering with regulators saves time and money by avoiding the protracted volley of letters back and forth. It allows us to focus on cooperative decision-making that is in the best interest of taxpayers. Funding for Defense-State Memorandums of Agreement, or DSMOA, is a critical ingredient. Under the terms of the DSMOA, we provide cleanup funds to the states who are charged with reviewing and approving our cleanup plans. This funding allows the states to hire full-time technical personnel and dedicate them to cleanup issues and decision-making on behalf of the state. Without DSMOA, progress would slow considerably.

Restoration Advisory Boards, or RAB's, are an important adjunct to the cleanup team approach that we favor. An outgrowth of fast track cleanup at closing bases, RAB's are jointly chaired by a Navy official and a citizen elected by the community. They are open forums for citizens who live by our bases to better understand the nature and severity of any contamination, and have a voice in the decision-making process. We think the relatively small amount of funding for the administrative costs of the RAB's are good investments for getting the word out to the community as to what we are doing, how we plan to do it, how much it will cost taxpayers and getting their advice and concerns.

Risk management

Last year, the Department of Defense adopted a new prioritization scheme based on risk management which considers the relative risk of sites with other risk management factors. This will not avoid cleanup of any contaminated sites. We fully recognize and accept our legal responsibility under CERCLA, as well as our moral obligation as citizens, to do so. Since we cannot reasonably and financially do everything first, relative risk seeks to identify those sites that pose a greater health and safety risk for first action. We can then focus on these high risk sites within known fiscal boundaries.

Relative risk considers the relationship between the contaminant(s), the pathway(s) that the contaminant may travel, and the receptor(s), i.e. human, animal and plant, that can be adversely affected. Sites are then grouped into categories of "high," "medium," and "low" to establish funding priorities.

DEPARTMENT OF THE NAVY FISCAL YEAR 1997 RELATIVE RISK

	Number of sites	Percent of funds
High	485	83
Medium	62	2
Low	63	2
Not evaluated	20	2
(Management)	....	(11)

It might be an attractive option for some to limit funding to only, say, high-risk sites. However, we consider other factors beside relative risk in setting funding priorities. We give a strong preference to high-risk sites, but remain flexible within a stable funded program to cleanup selected medium and even low risk sites. For example, the marginal cost of having the remediation contractor take care of a low risk site adjacent to a similarly contaminated high risk site may make good business sense, rather than re-mobilizing the contractor years later. Failure to clean up a medium risk site in a timely manner could result in its moving to high risk, causing more damage and costing more money to clean up. If only high risk sites are funded, it puts enormous pressure on the subjective portion of relative risk analysis to rank everything as high risk, thus ensuring that there is no functioning priority scheme.

Not evaluated sites are those that have not yet been evaluated according to the DOD relative risk model. We are conducting the additional tests necessary to score these sites. The bottom line is that we need the flexibility to package sites for remediation into projects that make both common sense and good business sense.

New Department of the Navy policy

DON cleanup principles.—We will evaluate and ultimately close our all sites; we will maintain a stable funding profile; we will have open dialogue with all stakeholders; we will expedite cleanups.

The Assistant Secretary of the Navy for Installations and Environment implemented a new cleanup policy for active Navy and Marine Corps bases last year. This policy established clear principles under which we would conduct our cleanup efforts. Under the policy, we will invest funds in the cleanups that bring us the most relative risk reduction. We want to have an open dialogue with regulators and the communities through our partnering efforts. We support the continued use of negotiated legal agreements, but new agreements must reflect relative risk evaluations and must fit within the existing stable funding controls across the FYDP. New agreements must include provisions for "rolling milestones," which link specific cleanup actions to the availability of funds in a given budget year. Only after Congressional authorization and appropriation actions are complete do the milestones in the agreement become enforceable. Milestones beyond the budget year are planned, but are not enforceable. Existing negotiated legal agreements are to be revisited with regulatory agencies and amended to reflect funding controls and risk management factors wherever possible.

Impact of the fiscal year 1996 congressional reduction

The Congress cut the fiscal year 1996 $1.62 billion DERA budget request by $200 million. The Department of the Navy's share of this reduction was $59 million. We accommodated this reduction by cutting projects using risk management in consultation with regulators and the RAB's. Many of the projects that we cut were high-risk cleanups, which will be deferred until fiscal year 1997. These cuts, on top of previous cuts, will do more than just slow progress and stretch out the cleanup effort. There is a very real impact at the base and in the surrounding community. For example, we cut: $1.5 million cleanup project at Norfolk Naval Shipyard to remove PCB-contaminated soil and waste oil from a site adjacent to an old landfill which also requires cleanup. This site is also located very near a tributary of the Elizabeth River which is receiving considerable scrutiny from the public and regulators due to high pollution levels; $600,000 cleanup project at Cherry Point Marine Corps Air Station will result in the deferment of groundwater cleanup. This could result in contaminated groundwater reaching Slocum Creek, a waterway used for fishing, crabbing and swimming.

The Congress has cut the DOD cleanup budget in each of the past four years by a total of $1 billion, shrinking the program from a peak request of $2.4 billion to the current $1.4 billion. Congressional approval of devolvement and stabilizing funding is, in our view, the remaining critical step. I ask your support.

COMPLIANCE

The Compliance program supports our efforts to meet existing environmental requirements for our current operations and industrial processes. The principle challenges here are under the Clean Water Act, which regulates wastewater treatment and other discharges into waterways; the amended Clean Air Act; the Toxic Substances Control Act, which regulates the management and disposal of PCB's; and the hazardous waste, solid waste and underground storage tank provisions of RCRA. Compliance programs are implemented by every major Navy and Marine Corps activity.

Department of the Navy fiscal year environmental O&M

	Percent
Nonrecurring	56
Recurring	44

We have taken steps in the preparation of this budget submission to better distinguish our environmental compliance, conservation, and pollution prevention cost between recurring cost and one-time costs. Recurring costs, which we call Class "0" consist of those costs which an installation must bear on a daily basis to conduct its mission. They include salaries and benefits for the base's environmental staff; operating permits and fees; sampling, analysis and testing; and hazardous waste handling and disposal. Having identified recurring costs, we intend to manage them to maximize efficiency.

The remainder of the compliance budget consists of one-time projects that must be done to meet an existing environmental standard. Class I projects are those required to meet a compliance deadline that has already passed; Class II projects are required to meet a specific future deadline. Class III projects provide an environmental benefit, but are not required by law or regulation. Our policy is to fund all Class I projects as soon as they can be accomplished, and to fund all Class II projects "just-in-time" to meet the regulatory deadline. Due to funding constraints, we do not budget for Class II projects that can be deferred and still meet the deadline, nor any Class III projects. Typical examples of projects included in the fiscal year 1997 budget are: Perform a hazardous air pollutants emission inventory and develop a air toxic risk management plan at Naval Air Station Norfolk, Virginia, $250,000; remove 54 non-compliant underground storage tanks at MCAS Cherry Point, North Carolina, $300,000; install an oily waste collection system at NS San Diego, California to prevent the discharge of oil, bilgewater, and contaminated fuel into San Diego Bay, $7,050,000.

DEPARTMENT OF THE NAVY OUTSTANDING NOV'S

	Navy	Marine Corps
Fiscal year:		
1993	301	531
1994	178	441
1995	176	40

Our past investments in these one-time projects, combined with Navy and Marine Corps Environmental Compliance Evaluations, education and training courses, and greater overall management attention has significantly reduced the number of notices of violations that we have received.

I would now like to highlight a few specific ship compliance issues.

SHIPBOARD SOLID WASTE

The Fiscal Year 1994 Defense Authorization Act (Public Law 103–160, November 20, 1993) amended the Act to Prevent Pollution from Ships [APPS] to extend the deadline for the Navy to comply with discharge restrictions on plastics at sea and solid waste in designated "special areas" of the world's oceans and seas.

We recognized the hazards that plastics pose for marine life and began a research effort in the mid-1980's to find a technological solution. The Navy later initiated a program to reduce the volume of plastics brought aboard ship, and directed ships to retain food contaminated plastic waste for the final three days at sea, and non-food contaminated waste for the final 20 days at sea—the "3/20" rule.

Research investments successfully developed a plastic waste processor [PWP]. The PWP reduces plastic waste volume 30:1. It first shreds the plastic into small chips, and then a separate heat unit melts, sanitizes and compresses the plastic into round discs weighing about 15 pounds. With a PWP, all plastic waste, including food contaminated plastic waste, can be safely stored aboard ship for disposal when the ships returns to port.

The Fiscal Year 1994 Defense Authorization Act extended the compliance deadline for plastic discharges from surface ships to 31 December 1998, codified an installation schedule for the PWP, and made the Navy's 3/20 rule a law.

The PWP installation is on track. The first production contract was awarded to two firms in July 1995. The first production PWP was installed and tested satisfactorily on the U.S.S. *Vandegrift* (FFG–48) on 23 April 1996, more than two months ahead of the date mandated by the Act, 1 July 1996. In fiscal year 1997, we plan to buy the final 91 PWP systems at a cost of $20.5 million. Installation costs are phased at $81 million this year, and $37 million in fiscal year 1998. All other milestones will be met including the 31 December 1998 deadline.

We have not overlooked responsible management of its compressed plastic waste. The Navy is currently working through a Cooperative Research and Development Agreement with a small business manufacturer to use the recycled plastic disks as a component for environmentally sound marine pilings designed to replace creosote-impregnated wooden pilings.

The MARPOL Convention did not apply to warships, requiring compliance for warships as "reasonable and practicable." However, the Fiscal Year 1994 Authorization Act reaffirmed the goal that the U.S. Navy ships meet the no-discharge (except food waste) restrictions in "special areas." Special areas, which include the Baltic Sea, the North Sea, and Antarctic Ocean, are so designated because of their confined nature and environmental sensitivity. Additional designated areas include the Mediterranean Sea, the Persian Gulf, Red Sea, the Black Sea, and the greater Caribbean Region which will come into effect upon a finding that shoreside reception facilities are available. It extended the compliance deadline to 31 December 2000 for surface ships, 31 December 2008 for submarines, and directed the Secretary of the Navy to submit a report to the Congress by November 1996 on the Navy's plans for achieving compliance.

Consider the magnitude of daily compliance with the APPS. A ship at sea is like a small town with many of the same management concerns, including the generation and disposal of solid waste. Last year the Navy had 224 surface ships with crews ranging in size from about 300 for a frigate or cruiser to over 5,000 for an aircraft carrier. Our studies have shown that Sailors generate approximately 3 pounds of solid waste per day per person when the ship is deployed. This amounts to approximately 900 pounds of garbage per day on the frigate, and almost 8 tons per day on the carrier.

On a typical deployments lasting six months, the frigate will generate about 83 tons of garbage, and the carrier will generate almost 1,400 tons. There is no weekly curbside refuse service to pick up this garbage, and no landfill on the ship to safely store or dispose of it. Yet, how can the U.S. Navy manage the volume of solid waste generated daily if the practice of overboard discharge is no longer acceptable?

Solid waste studies.—Center For Naval Analysis studied retention and retrograde; National Academy of Science reviewed future technologies; Naval Supply Systems Command looked at source reduction; Naval Bureau of Medicine examined health risks; Naval Command, Control, and Ocean Surveillance Center, with the University of Georgia, Scripps Institute, and the National Fisheries Service analyzed pulper and shredder discharges.

Since passage of the Act, the Under Secretary of the Navy established a Ship Solid Waste Executive Steering Committee to identify and propose the most cost-effective solid waste management plan for our warships. The Steering Committee charted a number of studies. Upon conclusion of these studies, the Steering Committee assessed the impact on vessel operations, crew safety and habitability, environmental effects, and cost of each alternative.

Source reduction is a key component of the overall solid waste management effort, and it is being pursued aggressively, although it will not be enough to solve the problem. Although incineration was a possible approach, it would have severe adverse space and weight impacts, and would cost over $1 billion to implement safely. Storage and retrograde of solid waste would consume too much shipboard space, adversely affect operations at sea when the garbage is transferred to a supply ship or a garbage barge, and would also cost roughly $1 billion to implement. This cost does not include the cost of additional garbage reception vessels and the costs of disposal of waste in foreign ports. Based on the recommendations of the Steering Committee, small coastal vessels with limited mission duration will retain and retrograde waste. Pulpers and shredders were identified as the best solid waste management practice for large ocean going vessels. The pulpers will convert paper and cardboard garbage into a sea water slurry for overboard discharge. The shredders will cut metal cans and glass to pieces, which will then be bagged and dumped overboard where they will quickly sink and degrade over time. Studies show that pulper and shredder effluent will not have an adverse effect on the marine environment. The pulpers and shredders do not adversely affect operational capability of our ships, and, at about $300 million in fiscal year 1998 through fiscal year 2000 to buy and install, are the least costly of the alternatives.

Unique circumstances make it imperative to act during this session of Congress. Only if APPS is amended in this session of Congress would the Navy be able to begin procurement and installation in fiscal year 1998 and meet the 2000 compliance deadline for surface ships. The APPS change will enable the Navy to select pulpers and shredders as the preferred alternative; programming and budgeting actions will ensure that funding is identified in the fiscal year 1998 Department of Navy budget; detailed designs for equipment installation on each ship will be authorized, and procurement actions for equipment will begin in fiscal year 1998. Modifications will be made throughout the fleet from late fiscal year 1998 through fiscal year 2000. Timing of modifications depends on ship availability schedules which, in turn, depend on projected operational scenarios.

Operationally, our fleet needs this equipment as soon as possible to solve the current shipboard solid waste management problem. Our ships make every effort to hold garbage onboard, but because they don't have adequate space or equipment, this practice degrades quality of life for our sailors. Since current practices have become an operational, safety, and habitability problem, both the Atlantic and Pacific Fleet Commanders recently urged the installation of pulpers and shredders. Proven fleet performers, pulpers and shredders actually enhance operations because pulped garbage can be discharged during heavy weather and flight operations, when discharge is currently prohibited. Additionally, since we intend to use pulpers and shredders world-wide and not just in special areas, earlier installation will benefit the environment by eliminating the discharge of floating trash from Navy ships in all the world's oceans.

The Department of the Navy has worked closely with stakeholders and other federal agencies on this program and in April issued a draft report to Congress for federal agency and public review. The Department of Navy will submit a final report to Congress by November 1996, as required by the Fiscal Year 1994 Act, and has included a legislative proposal in the fiscal year 1997 Omnibus to authorize the use of the pulpers and shredders. I ask you to support this important initiative. Following submission of the Navy's special area plan to Congress, it is expected that the Secretary of the Navy will issue the directives necessary to implement the plan. These directives will address hardware installation requirements and shipboard solid waste management practices.

POLLUTION PREVENTION

Today's Department of the Navy faces significant military and environmental challenges. The nature of our military operations and the industrial support for our maintenance and manufacturing activities necessarily include the use of some hazardous materials. We know that those materials can increase cost and impose compliance obligations. The objective of our pollution prevention program is to minimize the use of such materials or eliminate them altogether whenever possible. Money invested in this effort avoids extensive future cleanup problems and hazardous waste disposal costs, while maintaining the capabilities of our weapon systems. This paradigm shift, toward pollution prevention and away from traditional forms of "end-of-the-pipe" waste management and treatment, is a key to our environmental compliance and cost control strategy. We have a detailed milestone plan that spans the spectrum of Navy and Marine Corps activities, encourages individual commitment, and will become the primary means of achieving and maintaining compliance with all applicable federal, state, and local environmental regulations.

In addition to source reduction, we want to increase awareness of pollution prevention through educational initiatives, enhance the pollution prevention ethic of our work force, share evolving technology with other stakeholders, and foster consideration of prevention throughout the life• cycle of weapon systems, equipment and facility designs. It will help sustain readiness by reducing treatment, handling, and disposal costs for hazardous waste. It will also improve quality-of-life in the workplace by reducing occupational hazards to our people.

CHRIMP

CHRIMP saves money by: Providing better shelf-life management; avoiding procurement costs through reuse;reducing the disposal costs through reuse; allowing "just-in-time" procurement.

CHRIMP, the Navy's Consolidated Hazardous Material Reutilization and Inventory Management Program, provides centralized life cycle control and management of all hazardous material [HM] and hazardous waste [HW]. It establishes a chain of authorized ownership for each use of HM from the time it is procured to the time it is used or disposed. CHRIMP has cut HM procurement by virtually eliminating each units own supply locker of HM. Our Naval Supply Systems Command has been instrumental in propagating CHRIMP ashore and afloat with intensive training for fleet personnel, and centralized procurement and distribution of computer hardware and software. They have established HM Minimization Centers at the 8 Fleet and

Industrial Supply Centers to coordinate regional CHRIMP efforts. So far, we have initiated CHRIMP at over 80 shore activities and over 140 surface ships, and will phase in the rest in the next few years. The Marine Corps is implementing the CHRIMP philosophy through improved hazardous material management and control practices.

Pollution prevention afloat

Studies at our installations indicate that a large quantity of a Naval base's toxic material and hazardous waste originates from ships floating material they have accumulated and stored during deployment. To minimize the ships hazardous waste and maintain our ability to operate effectively at sea we are developing an afloat pollution prevention program. Fleet commanders have nominated the U.S.S. *WASP*, U.S.S. *Carl Vinson*, U.S.S. *Anchorage*, U.S.S. *John Hancock*, and the U.S.S. *George Washington* to serve as test platforms. A team of pollution prevention experts will identify suitable technologies, alternative materials, and management initiatives that can be demonstrated onboard the ships during their deployment. The team will identify equipment and other capital costs, installation and operational procedures, logistics requirements, hazardous material minimization and waste reduction, cost payback analysis, performance data, and manpower requirements. The U.S.S. *WASP* deployed to support the Bosnia peacekeeping effort with several pieces of pollution prevention equipment aboard for evaluation. The U.S.S. *Carl Vinson* deploys this month with a complete suite of P2 opportunities. We expect these prototypes will lead to promising technologies and management options for fleet wide use in the future.

The Marine Corps issued an Acquisition Pollution Prevention Guide in May 1995 to make acquisition pollution prevention management a standard way of doing business.

Pollution prevention in acquisition

We must plan now for future compliance. While most of our funding is devoted to cleanup of past contamination and compliance with current environmental standards, we can save significant time, money, and future effort if we factor in environmental considerations now for the weapon systems and platforms of the future. Executive Order 12856 requires all federal agencies to review standardized documents for specification of hazardous material and to revise those documents by the end of 1999. The Naval Supply System Command is doing this review.

The Assistant Secretary of the Navy (Research, Development and Acquisition), ASN(RD&A), has helped instill within the acquisition community the need to consider life cycle environmental factors. The Navy's Acquisition Review Board considers the potential for environmental impacts, proposed mitigation measures, and pollution prevention efforts at each milestone review before proceeding to the next phase of the acquisition. We are working with ASN(RD&A) to revise the current Department of Defense Instruction 5000.2 to require program managers to conduct pollution prevention analyses on a continuing basis and to integrate pollution prevention into the systems engineering process. ASN(RD&A) issued directives last year on the need to use National Aerospace Standard 411, "Hazardous Material Management Program," and to prepare NEPA documentation whenever an acquisition program has a potential impact on the natural environment.

JG–APP innovations.—DOD (all services)/McDonnell Douglas sign Joint Test Protocol for Chrome Free Coating. DON avoids approximately $2 million in RDT&E and $1.3 million at Navy Depots.

We are participating in various joint service initiatives to foster pollution prevention. The Joint Group on Acquisition Pollution Prevention [JG–APP], comprised of the Service logicians assisting program managers to identify and implement pollution prevention opportunities during all phases of a weapon system that will lower life cycle maintenance and disposal costs. This partnership was established to overcome duplication efforts in changing environmentally hazardous military specs/standards, and establish common DOD testing procedures for qualifying environmentally sound alternatives to current practices. The Joint Depot Environmental Panel [JDEP], also under the Joint Logistics Commanders, focuses on pollution prevention technologies and information transfer mechanisms for DOD industrial activities, including shipyards and Naval Aviation Depots. The National Defense Center for Environmental Excellence [NDCEE] was established by the Congress in 1992 to demonstrate state of the art environmental technologies for military use. These three joint service initiatives work closely together in a complimentary fashion to ensure that the Navy and DOD maximize the benefits of P2 while minimizing the cost.

Ozone depleting substances [ODS's]

As a result of the 1987 Montreal Protocol, a ban on the production of ODS's went into effect for industrialized nations in January 1996. We use ODS's in three primary applications: air conditioning and refrigeration (CFC–11, –12, –114); fire fighting agents (Halon 1211, Halon 1301); and solvents (CFC–113, methyl chloroform). Our environmental technology researchers have joined with EPA and chemical manufacturers since 1989 to identify, test, and qualify non-ozone depleting alternatives. The challenge is that no "drop-in" replacements have been identified. Where before one substance could be used in many different applications, now each application may require a different substitute. Alternatives often require increase space and weight considerations that make retrofit challenging or impossible. We are, however, making progress.

The Navy CFC & Halon Clearinghouse lists ODS alternatives, military specs and revisions, Navy ODS elimination program, and other ODS news. It is accessible on the world wide web at http://home.navisoft.com/navyozone.

Navy ships have one of the largest installed bases of CFC–12 air conditioning and refrigeration systems in the world. Through our own research and development efforts and in close cooperation with industry, we have found that ozone friendly HFC–134a is an acceptable substitute. We will convert nearly 1,100 CFC–12 cooling systems to HFC–134a by the year 2000 at a cost of approximately $95 million. As of April 1996, we had converted 245 air conditioning plants on 47 ships.

The EPA awarded 7 Stratospheric Ozone Protection Awards to Navy researchers and program managers in 1995.

The military, NASA, and private industry have relied on CFC–113 for cleaning critical oxygen life-support systems on submarines, spacecraft, aircraft, and diving equipment. The Naval Sea Systems Command [NAVSEA] worked with government, industrial and scientific institutions to develop an alternative. Last year, the U.S. Patent office issued a patent to NAVSEA and its partner, OCTAGON Process, Inc., on a water-based cleaner called "Navy Oxygen Cleaner," or NOC. NOC is non-flammable, even in a pure oxygen environment. It contains no hazardous regulated material, is inexpensive because it can be recycled, and has zero ozone-depleting potential. NOC is so benign that several municipalities allow its disposal into local sewage systems with minimal treatment. NOC will replace the use of more than one-half million pounds of CFC–113 annually in the Navy alone. It is being implemented at naval shipyards, submarine maintenance facilities, diving facilities, and naval aviation depots.

Navy and Marine Corps aircraft systems commonly use Halon 1301 as a fire suppression agent. The Naval Air Systems Command [NAVAIR] worked with industry and the commercial sector to adopt the concept of inert gas generation used in automobile airbag systems to aircraft fire suppression systems. A series of pyrotechnic devices is placed throughout the space to be protected. When these devices are activated (upon impact in a car or during a fire in an aircraft), they combust and burn rapidly, producing large amounts of inert gases, including carbon dioxide, nitrogen and water vapor. In an automobile, these gases inflate the airbag. In an aircraft system, they effectively remove oxygen from the fire and extinguish it. This technology is currently specified for initial F/A–18E/F fighter aircraft and V–22 medium lift aircraft production.

The Marine Corps design of the Advanced Amphibious Assault Vehicle has banned ODS's and is limiting use of toxic chemicals like cadmium, chromium, and nickel.

LPD–17, an amphibious assault ship, will be the Navy's first "ozone friendly" built ship when it is delivered in fiscal year 2001. It will use HFC–134a for air conditioning and refrigeration instead of CFC–11, CFC–12, CFC–114; AFFF and a hybrid system of HFC–227ea and fine water mist for fire fighting instead of Halon 1301; and commercially available ozone friendly refrigerants for the ship's galley.

The Navy has over 800 refrigerant recovery and recycling units for fleet and shore use. About 8,000 Navy personnel are EPA certified refrigerant technicians.

All Navy and Marine Corps shore facilities are developing plans to convert non-mission critical air conditioning and refrigeration units and fire suppression system to non-ODS ones. Facilities consider factors such as equipment requirements, safety and reliability, retrofit costs, recovery/recycling procedures, remaining service life, and refrigerant supplies to develop plans to complete the conversion by 31 December 2000.

Even with the success of our environmental technology programs and recovery/conservation measures, continued use of certain ODS's for mission critical applications must continue. We must put the safety of our people first, particularly those in combat situations. We are relying on the Defense Logistics Agency to manage the Department of Defense ODS reserve for mission critical operations.

Pollution prevention equipment

Pollution Prevention Investments.—High Volume Pressure Spray Guns save $14,000 annually per unit; one cutting fluid recycle unit saves $5,000 in operation per year; Glycol recycle outfit for aircraft intermediate maintenance depots saves over $75,000 annually; Hydraulic Fluid Purifier saves over $2,000 per unit annually.

Executive Order 12856 requires all federal agencies to reduce toxic release by 50 percent over the period of 1994 to 1999. We have distributed Pollution Prevention Planning Guides, and all Navy and Marine Corps bases have or are developing pollution prevention plans. The Navy created a centralized program to support these plans in 1995. Some of the money is used to demonstrate and evaluate promising equipment applications. Most of the money buys commercial off-the-shelf technology to be disseminated to Navy bases. The fiscal year 1997 budget includes $21 million to support this effort, a $7 million increase over fiscal year 1996.

CONSERVATION

We are particularly sensitive about protecting the natural and cultural resources on our bases. We want to comply with the letter and the spirit of all major conservation statutes, like the Endangered Species Act, the Marine Mammal Protection Act, the Migratory Bird Treaty Act, the National Historic Preservation Act, the Sikes Act, and the Archaeological Resource Protection Act.

The Department of the Navy is the steward for 3.5 million acres of ecologically sensitive land in the United States. Our installations participate with private, state, and federal conservation organizations to advance mutual goals. Our natural resources professionals, many of whom are funded from agricultural outleasing and forestry revenues, routinely work with state and federal conservation agencies to coordinate efforts in forest management, cultural resources management, soil and water conservation, fish and wildlife management, and outdoor recreation opportunities for our sailors, marines, and their neighbors in the community.

While we have a legal and ethical obligation to conserve the natural resources entrusted to us by the American people, we also have a military objective to ensure continued access to these resources. Many of the operational actions we take to train new sailors or marines, maintain readiness of combat forces, or even test new weapon systems have an impact on the natural and cultural environment. We need to understand the characteristics of the natural resources on our bases and training areas so that we can minimize adverse impacts and comply with all statutory and regulatory standards. Installations with significant natural resources prepare integrated natural resource management plans that aim to strike this balance. Our goal is to make every acre support our national defense mission, while still taking the protective measures that the law requires.

Our efforts are paying off: At Marine Corps Base Camp Pendleton, California, a unique eco-system based consultation with the U.S. Fish and Wildlife Service has preserved habitat for 14 listed endangered species. MCB and USF&WS have mutually agreed on a overall management plan for riparian areas. The Honorable Bruce Babbitt, Secretary of the Interior, participated in the signing ceremony; the Navy is helping the recovery efforts for the Northern Right Whale. This is the most endangered of all the large whales with a total population of less than 350. Naval Base Jacksonville, Florida is supporting an awareness program and early warning system and aerial surveys to detect the whales and relay the information to transiting vessels; Marine Corps Base Camp Lejeune cooperative efforts with the USF&WS has served not only to enhance the population of the endangered red-cockaded woodpecker, but also to improve the quality of training lands available. In recognition of the success of managing this species, the Marine Corps and USF&WS jointly produced an endangered species poster depicting a red-cockaded woodpecker and military training occurring in proximity. As Ms. Noreen Clough, Southeast Regional Director of USF&WS noted at a ceremony unveiling the poster, “Be it birds or people, Americans know you’re safe when you’re with the Marines.”

TECHNOLOGY

The environmental technology program supports our cleanup, compliance, conservation and pollution prevention efforts. Our technology development efforts focus on satisfying technology needs for the military applications of today and tomorrow. We first look to the marketplace to supply us with our technology needs. When there is no off-the-shelf technology available, we perform the necessary research and development in our laboratories, or contract with universities or commercial labs. Some technologies we develop also have commercial applications—so-called dual use technologies.

The development of a promising technology pays off only with successful implementation. Therefore, we are giving special attention obtaining the necessary regulatory approvals, public acceptance and commercial participation. Three examples: we worked with the Western Governors Association "Demonstration of Onsite Innovative Technology [DOIT]" project to promote interstate acceptance of technologies important to the Navy in its multi-state activities; we secured formal California certification of an important site characterization technology; and we are working with the Interstate Technology & Regulatory Cooperation [ITRC] workgroup to provide for faster and less costly regulatory acceptance among many states.

I have already discussed two major environmental technology efforts—development of the plastic waste processor, and our efforts with chemical manufacturers to find ODS alternatives. Other examples of technologies that we have successfully applied to the fleet include: The aviation program has produced several environmentally compliant protective coatings and surface pretreatment for aircraft, including a Unicoat Self-priming Topcoat; a water-borne epoxy; non-chromate deoxidizers; Model 3F Oil/Water Separator currently being installed on new class minesweepers; a Mobile Refrigerant Recovery and Recycling Unit for pierside recovery and recycling of shipboard ODS refrigerants used in air compressors and air conditioning plants.

There are many other smaller scale, but equally important research efforts we are now pursuing. For example, our fiscal year 1997 research efforts include: Initiate development of plastics waste processor for submarines; evaluate promising non-ODS fire fighting technologies from science and technology community; continue development of secondary oily waste polishing system.

BRAC IMPLEMENTATION

BRAC implementation strategy

The base closure process is a challenging one for the Department of Navy and for the many communities who have hosted our ships, aircraft, Sailors and Marines for so many years. Yet is one we must pursue if we are to properly size our shore infrastructure to reflect the smaller force structure of the Post Cold War era. As you know, excess capacity in our shore facilities exerts a significant financial drain on our budget.

We are implementing the four scheduled rounds of base closure, the first in 1988 under Public Law 100–526, and three additional rounds in 1991, 1993, and 1995 under Public Law 101–510. As a result of these BRAC decisions, we are implementing a total of 178 actions consisting of 46 major closures, 89 minor closures, and 43 realignments.

We have adopted a straightforward strategy for implementing BRAC closure decisions. First, we want to achieve operational closure at each military installation selected for closure as quickly as possible. By that I mean all mission equipment and military personnel, with the exception of a small caretaker cadre, will be disbanded or relocated to the "receiving" location, the military mission will cease, and the Commanding Officer will order the flag lowered for the last time at the base. Second, we seek to support local communities in their conversion and redevelopment of our closing bases. The faster we can close a base, the sooner we can realize savings from reduced operating cost. Rapid operational closure also provides base closure communities with early opportunities for economic redevelopment.

BRAC environmental issues

Environmental issues play a key role in redevelopment. President Clinton recognized this by including Fast Track Environmental Cleanup as one of the key components of the Five Point Plan for Revitalizing Base Closure Communities. Nearly 79,000 acres under BRAC 1988, BRAC 1991, and BRAC 1993 are included in the Fast Track Cleanup program, with another 73,000 acres (predominantly at Naval Air Station Adak, Alaska) included under BRAC 1995.

BRAC environmental funding supports.—Environmental Assessments and Environmental Impact Statements under NEPA; compliance issues (e.g., RCRA) directly associated with closure; and environmental cleanup of soil and water contamination due to past activities.

Timely completion of the NEPA process is one of the most critical elements in our ability to implement BRAC decisions to realign forces and dispose of surplus properties. While the closure decision is exempt from NEPA, reuse, realignments, and property disposal actions are subject to NEPA and must be addressed. We have already started NEPA documentation for BRAC 95 realignments. Among the many environmental issues that can surface and require mitigation measures are wetlands, endangered species, air and water quality, and cultural resource concerns.

The top cleanup priority at both active and BRAC bases is to eliminate or control contamination that poses an immediate health and safety risk to people and the environment. Unlike the cleanup program at active base, which is driven by risk management and legal agreements, our BRAC cleanup efforts are first directed to supporting reuse opportunities.

BRAC cleanup teams

We have established BRAC Cleanup Teams, or BCT's, consisting of Navy, EPA Region, and state representatives to help manage the cleanup effort. A total of 40 BCT's, some managing more than one base, are working to reduce red tape, improve cooperation and coordination and focus cleanup efforts to speed reuse opportunities. The BCT's have developed Base Cleanup Plans, or BCP's, which form the basis for prioritizing cleanup efforts at the base so they are consistent with reuse plans. The BCT's are working closely with Local Redevelopment Authorities to ensure that priority attention is given to first clean up those land parcels with the highest potential for reuse.

We have directed the BCT's to expand the BCP's to consider deed restrictions, the need for continuing efforts such as long term operation and long term monitoring, and to document success stories. We have also asked the BCT's to prepare a business plan that defines environmental links to reuse, identifies critical milestones, and provides defensible reasons for continued funding.

The BCT's have prepared Environmental Baseline Survey's, or EBS's, on all 1988, 1991, 1993 BRAC closures. To date, about 35,000 acres have been identified as environmentally suitable for transfer. Most of these acres are on bases which have not yet attained operational closure. Surveys for BRAC 1995 bases are due this November.

Restoration advisory boards

We have also established RAB's, or Restoration Advisory Boards, at all significant base closure locations. The RAB's function in the same manner as a previously described for active bases. We encourage community input by preparing public notices, document summaries, and hold public hearings in more than one language when needed. Naval Air Station Adak, Alaska, has one of our larger RAB's, comprised of 35 members, with over 50 people attending meetings.

DEPARTMENT OF THE NAVY FISCAL YEAR 1997 BRAC ENVIRONMENTAL

[In millions of dollars]

	Fiscal year— 1996	Fiscal year— 1997	Change
BRAC:			
1991	86	68	−18
1993	139	282	+143
1995	72	50	−22
Total	297	400	+103

BRAC funding strategy

We currently estimate the cost to complete cleanup at all four BRAC closures at $2.0 billion. We are focusing our funding on cleanup of those sites with the most immediate opportunities for reuse. We do not want cleanup to get in the way of reuse. The large increase in funding for BRAC 93 is related to the closure of numerous bases. Even as we invest more money in BRAC cleanup, the severity of contamination at several BRAC bases, particularly industrial facilities included on the National Priorities List, precludes having a remedy in place in the near term. I expect we will continue to need funds to complete cleanup at these bases beyond the year 2001.

Environmental "floors" and "ceilings"

In the past, Congress has imposed limitations on environmental funding with the BRAC account. These environmental "floors" and "ceilings" have complicated our ability to react to changing situations at closing bases. We do our best to try to accurately project our budget requirements, but the complexity of the BRAC moves that must be accomplished, and the dynamics of the Local Redevelopment Authority's evolving reuse and redevelopment plans make this a challenging endeavor. I ask that you place neither a "floor" nor a "ceiling" on the environmental portion of our BRAC budget and give us the flexibility to use the funds where they serve the greatest need.

CONCLUSION

Our environmental program support readiness, satisfies our legal obligations, and sustains our civic role to protect the Nation's health and welfare. We are implementing a new approach to cleanup past contamination based on devolvement of funds the Military Services, use of risk management to set priorities, and completing the cleanups under a stable funding profile. Our compliance program allows Navy and Marine Corps activities to meet current federal, state, and local environmental standards at minimum cost. Our pollution prevention efforts meet compliance needs by cutting pollution at the source, improve readiness, and lower costs. Our conservation program ensures continued operational access to these areas and preserves the natural and cultural resource on our bases. Our technology program provides innovative new solutions to meet the environmental needs of today and tomorrow. And our environmental efforts at base closure locations are designed to expedite cleanup and speed community reuse of the property.

Across the board, we are taking steps to control rising cost. For the first time since identifying an environmental budget, the fiscal year 19997 environmental budget is less than that requested last year.

That concludes my statement. I would welcome any questions.

Senator INOUYE. Before proceeding with questions, Senator Shelby, do you have a statement?

Senator SHELBY. No.

Senator INOUYE. Senator Lautenberg.

Senator LAUTENBERG. If I may take just a couple of minutes, Mr. Chairman, I want to thank the witnesses for their excellent statements. I am encouraged by what you say, but you will be able to tell from my questions that I would encourage you to do even better.

I want to thank you, Mr. Chairman, for holding this hearing. I, too, was stuck in traffic, and I know that the other chairman would be here if it were not for those obstacles. As you can see from the dividing line I still believe Senator Inouye is the real chairman. [Laughter.]

I have a particular interest in the defense environmental restoration programs, and I know how important it is for protecting public health and the environment.

I am the ranking Democratic member on the Superfund Committee, on the EPW Committee, and in the past this committee has been critical of the mismanagement of the cleanup program. Recently the program suffered serious and disproportionate cuts. Despite that, the program has recently made major progress, and DOD generally has gone a long way in responding to past criticism.

CLEANUP

By way of example, this committee has expressed concern that too much funding has been used for studies rather than the actual restoration activity, but lately I have got to say that DOD has made real progress in this area.

For instance, in fiscal year 1995 about 60 percent of the program's funds were spent on cleanup this year, and this year that figure is approaching 70 percent.

In response to some criticism, DOD has been doing a better job of working more cooperatively with regulatory agencies and the committees. It is fair to say the cleanup program seems to be working much better than in the past. At the national priority list sites, the number of remedial action starts has increased by 188 percent since 1991, and in the same period the number of remedial actions actually completed increased from 4 in 1991 to 31 in 1995, a major increase in results. The speed of cleanups also has increased dramatically.

Now, we have seen some of this progress in my own State of New Jersey. Thanks to innovative project management and close cooperation between various agencies and communities, the cleanup at the former Raritan Arsenal was accelerated from 5 years down to 20 months, a major achievement.

As a result, the Middlesex County College baseball team now has its own field back, and we thank you for that. They have got a good team. Mr. Chairman, I do not give the credit to the field.

The Defense Department really deserves credit for improving the speed and efficiency of cleanups, but at the same time, as one would expect, as we prepare for the other shoe to drop, I think that all of us should recognize that environmental cleanup unfortunately is inherently a time-consuming and complex process. It can be frustrating, but using delays to justify further reductions only cuts off our noses to spite our faces. The end results are further delays, and the real losers are our communities and public health.

A lack of funding as of September 30 of last year was responsible for blocking action at over 3,500 Army and Navy sites, and that is unacceptable. The people who live near these sites are counting on us to get these places cleaned up, and we simply have to find the resources necessary to make that happen.

So, Mr. Chairman, I think that we can work together to put the program on a more stable and secure financial footing, and I look forward to working cooperatively with all of the members of the committee, the chairman, the ranking member, and the members of the subcommittee to that end, and I thank you very much, Mr. Chairman.

Senator INOUYE. Thank you very much. Senator Lautenberg, Secretaries, I am sorry to advise you that we are in the midst of a vote at this moment. We have just got the second call, so if I may suggest, we will stand in recess for 10 minutes and we will be back.

[A brief recess was taken.]

Senator STEVENS [presiding]. My apologies to you. I think the mayor was very wise to take his time off right now, because I would hate to be the mayor of this town after that tieup this morning.

I do appreciate your courtesy, my friend, in getting the hearing going, and we have had some brief discussion here off the record.

ADAK

We were just talking, Ms. Kandaras, about Adak. Just for the information of my colleagues here, could you tell us, have you developed any new strategy for Adak, and what are your feelings now about the time that will be involved as far as the cleanup period for Adak?

Mrs. KANDARAS. The bulk of the cleanup will be able to be accomplished over the next 6 to 8 years, and due to the extensive amount of work that has already been accomplished in Adak, we have a pretty good idea of what work needs to be done.

Because of that, we are in a position to actually define those in requests for proposals, and we expect that to go out for solicitation in the near future in a firm, fixed price sort of contract. A combination of those efforts, between our Naval Facilities Engineering Command, the commander up at Adak, the community all working together will help us deliver the kind of cleanup we need on that particular site.

Senator STEVENS. But during the period of development of Adak, the Navy people were very farsighted, really, and utilized contractors who had experience in the area but also insisted that the people of the Aleutians receive some priority in terms of the employment.

It is a place that has probably the highest unemployment in the country today on a sustained basis, and I am very hopeful that we can, as we get into this contract period for the cleanup, which probably will be the largest amount of money expended in the initial period here in the near timeframe—is it possible for you to develop a contracting scheme that will assure that the provisions we put in the Defense bill I think every year apply to this cleanup?

Those provisions require that, where there is a State that does have higher than average—unemployment that is higher than the national average, the contracting be with local contractors and to the maximum extent possible that there be local employment. Can that process be used for this cleanup?

Maybe I should ask others, beyond you, but I do not think the Navy has been doing that. We have been getting these multistate—what is that called, these things?—RAC (remedial action contracts). RAC contracts. Every agency has a different set of initials for those, but that ends up with a multistate contract, and it is a way of obviating, getting around the provisions that we put in the Defense bill to try to assure that the defense dollars that are spent for employment really result in job opportunities for the people who live in the States that have the sustained high unemployment rates.

Can you work out a set of standards for this cleanup that will assure us that we will get some jobs for those Native people that live along the Aleutian Chain?

Mrs. KANDARAS. I would fully expect within the constraints of the competition required of us that we will be seeing an increase in local contractors, and that is for a couple of reasons. As we look at contracting in these areas, we have always followed the laws that are required of us, and not only is it in the areas of unemployment, but also for unique areas, and Alaska falls in that category because of its remoteness to other States, of course.

So as we take a look at this and develop a contracting strategy, we would anticipate within 2 years that we will be seeing a split of approximately 75 percent of the work being done by firm fixed price contracts with reliance of only about 25 percent on the RAC, which stands for remedial action contracts, which is the actual, what we call the shovels-in-the-ground kind of work that needs to be accomplished.

Senator STEVENS. Well, I do not know about the rest of the members, but I am really highly skeptical that these multistate contracts in the environmental field save the taxpayer money.

MULTISTATE CONTRACTS

When I go around my State and I see jets parked on the runways, private jets that bring in some of the supervisors from the other States to find out how the work is going, it does not take a rocket scientist to figure out that someone is spending money that could be used to do more work there in the State.

We have many firms that are associated with national firms but they have their local offices and they do their employment locally, whereas if one of those contracts was awarded to someone in any one of those seven State areas that we deal with, and everyone I have seen had at least seven States in it, the net result is you have a supervisory group that is flying around in jets that are paid for by the taxpayers, and I don't understand that one little bit.

I think we will have a hearing and just ask all of you who are involved in these RAC's throughout the services to come and discuss them.

I am told that we have some other witnesses who are coming that will be involved in that, too, but in this area I think Adak is going to be the largest expenditure of environmental cleanup in our State before we are through, and it just makes no sense for people to fly in from some place outside of Alaska to do the work out there when that is primarily manual labor and when there is unemployment along those Aleutian Islands. That is just staggering and persistent.

So I hope you will work with us some way to figure out an approach that will assure that the people that do the work are the people who live closest to the project.

Mrs. KANDARAS. And I believe, as you see these future solicitations coming out in the next few months do look for those individual contracts which, as you say, have a very well-defined scope of work, either pumping and treating or covering up a landfill, that we will be able to encourage local participation in that competition and help the economy in those areas.

Senator STEVENS. I have one other question. I understand my friends have had opening statements, but where are you in devolvement? Are you involved in devolvement?

Mrs. KANDARAS. In my opening statement I have referred to devolvement because, in fact, we are very supportive of that move.

In reality, the services really have paid for cleanup in the past years. The devolvement puts the management into the programming and budgeting aspects of the cleanup program and gives a true accountability and look within our service into this program, and we strongly favor that.

We would also note that in no way should that change the visibility that you or any other committee that has interest in these programs has in the cleanup program.

Senator STEVENS. Well, Mr. Coleman, you are involved, too. I still think that the King Salmon cleanup is a good example of how cleanup can take place utilizing personnel that are on the nearest active base for supervision, and the dollars that go into the cleanup are, you know, basically——

Mr. COLEMAN. They are right there in the community.

Senator STEVENS. Yes; but they are oriented toward work rather than supervision.

Mr. COLEMAN. Correct.

Senator STEVENS. It is my feeling that the nearest base on the same service ought to be required to supervise the cleanup of any former Department of Defense site that was utilized by the same service. If it is Army, it ought to be the nearest Army base, Navy, Air Force—we ought to see that the administration comes from people who have to live in the area, and I think the people that have been involved in King Salmon have probably saved us $100 million, but they have also got the people in the area totally behind the project now.

Are you using that elsewhere, Mr. Coleman?

Mr. COLEMAN. Yes; we are. We are also looking at it for BRAC, to decrease our BRAC monitoring forces to make sure that wherever we have a BRAC base that there is an Air Force installation nearby where the engineering staff can conduct the monitoring. We now have to contract for long term monitoring. There are a lot of things that we are looking at in the Air Force for the out-years as to how we can use the remaining 76 bases to take care of those that were closed.

CONTRACT

We are also looking—you mentioned the contracting issue at King Salmon initiative, that local contracting issue there, making sure that we maximize what is in the area. We are using it at Griffiths and all of our BRAC bases to make sure that the local community is involved integrally in the work going on for BRAC.

So we think that we have a model with King Salmon and some other bases that we are doing, as well as the Air Force civil engineer looking at where he can use the existing active duty forces to monitor what is going on with regard to environmental remediation.

Senator STEVENS. How about you, Mr. Walker?

Mr. WALKER. Yes, sir, Mr. Chairman. As you know, we do have some large—we call them TERC contracts in the Army, through the Corps of Engineers. General Williams will be here to talk with you about that in the next panel.

We believe that they will be limited to no more than 15 or 20 percent of our total value of our cleanup cost in the Army.

The corps is emphasizing small and disadvantaged business in the local communities even in those TERC contracts so they receive as much business as possible, and they are carefully monitoring that as well.

And as part of the devolvement process we are also pushing down to the major commands more responsibility for executing the Army's program, so that is more in line with the way the Air Force has been doing it for a while. So we are moving in the direction that you suggest.

Senator STEVENS. Well, I see a side benefit, and that is, if someone from a command function of the nearest base can see what is happening in some of these places that are being closed, they see the equipment that is there, they see the basic facilities that are still there, there have been some instances that I know of in the

King Salmon where Elmendorf said, hey, you know, we need some of that stuff, and they bring it back, and we are saving money. It is not just all being packed off and sent to a dump somewhere.

But it does seem to me beyond that, and I think Mr. Coleman, Col. Sam Johnson ought to get some sort of merit award or some recognition for what he has done, because he turned a very, very hot foot area into an area that is going to be satisfied and has a long-term monitoring program attached to it with less cost than the original suggestion that came from a bunch of people that flew in from somewhere down south and decided what to do about it.

They wanted to pick up the whole thing and put it into 50 gallon drums and send it down for storage in Salt Lake City. When we start dealing with things like that, the expense as far as moving contamination from Alaska to Salt Lake City are horrendous.

He has done a tremendous job in securing the renovation of that area. The movement of contamination that is closest to the stream, they have got monitoring wells to see if there is going to be any pollution, even the smallest amount coming into that stream. If so, they will take further action. In the long run it will cost a lot less than that original concept.

So I hope that we will find some way to use that—by the way, he developed that himself.

Mr. COLEMAN. Yes; he did.

Senator STEVENS. He developed that whole approach. That is why I think he deserves a real commendation for what he has done.

Senator Inouye.

Senator INOUYE. I thank you, sir. This committee, as you know, working together with Deputy Secretary Deutch, encouraged the use of devolvement. Now that these accounts are going to be handled by the services, who will have the oversight responsibility, OSD?

Mr. COLEMAN. OSD.

Mr. WALKER. Ultimately, OSD will continue oversight, but it is devolved for execution to the services.

Senator INOUYE. I would like to commend you, Secretary Walker, for the good job you have been doing in Alaska, New Jersey, Mississippi, Missouri, and West Virginia. We have been getting reports from these areas commending the Army for the work done out there.

Mr. WALKER. Thank you, and I hope you hear that from Hawaii as well, sir.

Senator INOUYE. We are waiting for that. [Laughter.]

I have not heard from them yet.

RELATIVE RISK

Secretary Coleman, in your statement you speak of relative risk. How does this work?

Mr. COLEMAN. First, we analyze what is in the ground. Then we see how flexible you, the State, EPA regulators, and the public can be in determining and implementing an acceptable cleanup remedy.

Emphasizing worst first, we work those cleanups that pose the greatest threat to the health, safety, and welfare of people. Cleanups that all stakeholders agree do not have to be addressed immediately are worked later.

This allows us to thoroughly explore effective, low-cost cleanup technologies, such as natural gas attenuation, which allows us to provide adequate protection without having to engage in large scale construction efforts.

So when we address military installations, both active and closing, we evaluate the relative risk of each site. We use this information to determine our most pressing cleanup needs. This determination includes other issues such as reuse for a BRAC base, but in all cases we seek help from regulators and the public in developing a cleanup strategy at an installation.

So we have—and all of our IRP's, they are looked at for relative risk to health and safety and welfare of people.

Senator INOUYE. Madam Secretary, I am intrigued and wish to commend you for the steps and initiatives taken by your Department in preventing future problems. How does the shredder work on ships?

Mrs. KANDARAS. The shredder is what we have developed through looking at many types of waste management techniques on board ships. This is primarily for nonplastic materials such as paper and that sort of thing that must be dealt with when we are at sea for long periods of time.

What we are looking at is very simply a device that will shred this paper and then combine it with water to create a pulp, and that pulp then would be discharged from ships. Many biological studies have been done to determine what the effects of that discharge would be, which are relatively benign and, in fact, that is what is being pointed to as the desired alternative as we have gone through our environmental impact analysis.

Senator INOUYE. Are you aware if merchant ships are doing this also?

Mrs. KANDARAS. We do not see movement in that area, but, in fact, there has been a good deal of discussion between the private sector and the Navy not only on the pulper shredder, but particularly on our plastic waste process, or as they have to deal with increasing restrictions as to what they can discharge, and that sort of thing, I see interest in their part in using some of the technologies that the Department of the Navy has been developing in meeting the MARPOL requirements.

SUNFLOWERS

Senator INOUYE. Secretary Walker, in your statement you spoke of working with Mother Nature in this cleanup program. How do you use sunflowers for explosive contaminants?

Mr. WALKER. Well, Mr. Chairman, I do not understand all of the technology, if you want to know the truth. I am not a technologist, as you know, but the contractors that we have bought in to the Milan Army Ammunition Plant and the EPA, as well as the Tennessee Valley Authority and the State of Tennessee environmental office have determined that utilization of plants, and in this case it will be sunflowers, can actually, through a process of degradation of the contaminants, in this case explosives at the ammo plant, can actually degrade over time, and over a period of time, that is sufficient to qualify for our cleanup plan.

I was one of the skeptics when they first came and told me that this would work, but when the regulators tell us that it will, I have got to accept on face value that they are the technologists, and that it will, and as a result of that, we are going to be looking for those kinds of unique approaches wherever we can.

LEGACY

Senator INOUYE. Earlier this year, Mr. Secretary, the inspector general produced a report on Legacy. How is it doing now?

Mr. WALKER. Yes, Mr. Chairman; the DOD inspector general completed that report in January in final draft and submitted it to the services for review. All of the services have completed review and presented comments to the Department of Defense inspector general, and we are awaiting their final product.

Their work was actually an offshoot of a report that was done by the Department of the Army inspector general the year prior, and our inspector general did find some procedural problems and as a result of that we have taken steps in the Legacy Program to ensure that Government personnel rather than contractors, for instance, are in charge of making management decisions.

So as it relates to the earlier Department of the Army inspector general report, we have taken steps to satisfy every recommendation and, once we receive the DOD final report from their inspector general, we will do so as well.

Senator INOUYE. I wish to join my chairman in commending you for involving the communities in your efforts. The chairman has told me about the effort of the Air Force in this arena. Is the Army doing this also? I know the Air Force is.

RESTORATION ADVISORY BOARDS

Mr. WALKER. Yes, sir; as I mentioned in my statement we are issuing the first Army policy statement on advisory boards and, as a result of discussions we had with this committee last year, we are encouraging local communities to get more involved in local advisory boards to help us make decisions. Frankly, there have been some in the Army who feel that the more that you do, the more expensive it is.

It is our belief that over time it saves you money, because you are actually involving the local community more closely, even at FUDS sites; not just at the Army active base, but at the FUDS sites, which we have the executive agency responsibility for. So yes, sir, we are doing that.

Senator INOUYE. Finally, Secretary Kandaras, as you know, we provided funds to permit the Navy to investigate the use of vitrification. What progress have you made?

Mrs. KANDARAS. I would need to go back and check on the exact progress of that.

Senator INOUYE. I think we provided $3.5 million to the Navy to look into the process of vitrification for hazardous waste. Can you check that out, please?

Mrs. KANDARAS. I know some efforts are underway, so we will get an update for you.

Senator INOUYE. Thank you.

[The information follows:]

The Fiscal Year 1995 Department of Defense Appropriations Act provided $3.5 million in the Environmental Security Technology Systems Program to conduct a demonstration of the Terra-Vit hazardous waste treatment technology at an EPA-permitted facility in the State of Hawaii.

The Navy awarded a contract on 29 December 1995 to Battelle for $2.6 million to construct the equipment for the demonstration project. A test plan is being developed and will be completed by August, 1996.

Battelle is in the process of obtaining the requisite environmental permits to conduct the demonstration. Both Battelle and the Navy have been working with EPA Region 9 to complete the permitting process. A public hearing on the demonstration project is planned for June 1996 and National Environmental Policy Act (NEPA) actions are being considered. Assuming NEPA requirements are fulfilled and the requisite permits are obtained, the actual demonstration of the unit is planned to run from May 1997 through January 1998.

FORT MC CLELLAN

Senator INOUYE. Thank you, Mr. Chairman.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

It is true, as you said a few minutes ago, that you are saying goodbye to various communities, but I hope, and I am sincere about this, I hope you are not planning to walk away from your responsibilities and leave various communities holding the bag, literally. Hopefully, with our help you will have the money to clean them up, but I think it is imperative that you clean these bases up.

Secretary Walker, as far as the Army is concerned, Fort McClellan, near Anniston, AL, is in the process of being closed. The Fort McClellan Reuse and Redevelopment Authority has identified areas on the Fort McClellan grounds that have tremendous economic development potential, about 10,000 acres.

Most of those acres now are contaminated with unspent, unexploded ordnance. Are you going to clean that up? I think it is important. You know, Anniston is located between Birmingham and Atlanta, it has a tremendous potential for development economically, but no one, and I repeat, no one is going to develop an area full of unexploded ordnance of that size.

Mr. WALKER. You know, Anniston, I am very familiar with Anniston. I was sworn in and 18 hours later I paid my first visit to my first military base and it was Anniston at Fort McClellan, 2 years ago.

Senator SHELBY. So you are committing now to cleaning it up, is that what you are saying? [Laughter.]

Mr. WALKER. Well, let me say what my understanding is. Of course, you may know that my Deputy for Installations and Housing, Paul Johnson, was just down there to meet with the local redevelopment authority and to discuss the size of the Reserve enclave, which is one of the issues associated with the issue you raised.

We are in the process now of doing an evaluation, a basewide survey of what the cleanup costs and the activities are that might be required at Anniston. As a working estimate, we believe it will be somewhere in the neighborhood of $100 million.

Senator SHELBY. That is a lot less than you spent in Colorado, is that right?

Mr. WALKER. Oh, yes, sir. In Colorado it was over $2 billion.

Senator SHELBY. So this would pale in comparison with what you spent there.

Mr. WALKER. Yes, sir; it sure does. I can assure you that we are going to work very closely with the local redevelopment authority.

Senator SHELBY. What does that mean, though, when you say you are going to work very closely? We want you to clean up what you created.

Mr. WALKER. Yes, sir; I understand. I understand the message, and we will do what we need to do.

Senator SHELBY. What is the answer? This comes under your jurisdiction.

Mr. WALKER. Yes, sir; you know, you point out that closing bases is one of the most difficult things that the military has to do.

Senator SHELBY. Absolutely.

Mr. WALKER. One of the most difficult things that you have to do is, you are leaving behind a community that has helped you build the best Army in the world, so I believe that we have a responsibility to be good stewards, as we turn over those properties to the local communities, sir.

Senator SHELBY. And not leave the community holding the bag.

Mr. WALKER. That is right, because you are going to be losing some jobs there.

Senator SHELBY. A lot of them.

Mr. WALKER. And I believe that we have the responsibility to help replace those jobs as fast as possible.

Senator SHELBY. You believe that. Now, what are you going to do, though? I want to know what you are going to do. Are you going to clean this up? You said this would cost very little compared to what you spent in other areas.

Mr. WALKER. We will clean up everything that is agreed to with the local redevelopment authority. They really run the show for us. They tell us what they need and what they want.

Senator SHELBY. You are going to meet those needs?

Mr. WALKER. Yes, sir.

Senator SHELBY. And you are not going to fence off this acreage and abandon it?

Mr. WALKER. To my knowledge, that is not being planned at the present time.

Senator SHELBY. That is not in your plans, is it?

Mr. WALKER. No, sir.

Senator SHELBY. It is not in the Army plans?

Mr. WALKER. Not to my knowledge, no, sir.

Senator SHELBY. What are the Army plans to clean it up?

Mr. WALKER. That is our plan at the present time, yes, sir.

Senator SHELBY. Is that what you are going to do? I am not asking about the present time. I am interested in your doing it.

Mr. WALKER. Well, you have got me at a disadvantage.

Senator SHELBY. Why?

Mr. WALKER. What has happened is, the basewide surveys are still underway, and they have not been completed yet, so we do not know exactly where everything is and what the discussions with the local redevelopment authority will show.

Senator SHELBY. When will you know this? When the community is going to lose 20 percent of their employment, their economic base, do you not believe with such loss that you owe that community to clean that base up?

Mr. WALKER. Yes, sir.

Senator SHELBY. Especially where they have the potential to really develop an economic future there.

Mr. WALKER. Yes, sir; we sure do.

Senator SHELBY. Have you surveyed the buildings at Fort McClellan for asbestos and radon gas?

Mr. WALKER. Yes, sir; my understanding is they have surveyed the buildings for asbestos. I am not certain as to what the findings were. I am sure, like any other base, we are going to find that there were buildings with asbestos.

Senator SHELBY. Is it your intention, your commitment, to clean up the asbestos, in other words, not just walk away from it?

Mr. WALKER. I will have to consult with our people who are directly involved in that, because I do not know the answer to that right now.

ENVIRONMENTAL COMPLIANCE

Senator SHELBY. What are you doing in other areas?

Mr. WALKER. I am advised that in other areas we do clean up that which might be an immediate health hazard, and if there is any asbestos that is remaining, the purchasers are advised of what is remaining and that becomes part of the negotiation of the purchase price.

Senator SHELBY. Secretary Walker, when do you plan to meet again, if you know, with the Fort McClellan reuse people?

Mr. WALKER. I do not know exactly when another meeting is planned. I am sure it is not in the too-far-distant future, and I assure you whenever they want to meet we are willing to meet with them.

Senator SHELBY. And you are going to meet with them——

Mr. WALKER. Yes, sir.

Senator SHELBY [continuing]. To clean that base up, are you not?

Mr. WALKER. Yes, sir; we will.

Senator SHELBY. OK. Thank you.

Mr. WALKER. Thank you.

Senator SHELBY. That is all, Mr. Chairman.

Senator STEVENS. In terms of this budget before us, it is $261.9 million less than we appropriated for 1996. I see two problems in that. One, my staff tells me that each of the services spent between $78 and $88 million in administration of environmental compliance programs, and in the past 2 years they paid substantial fines to other Federal agencies such as EPA.

By the way, do any of the three of you know how much it costs you in fines, how much each agency paid in fines to other Federal agencies for being out of compliance?

Mr. WALKER. Yes, sir; in the Army, I mentioned in my opening statement in fiscal year 1994 we paid $6.3 million in fines but last year we only paid $600,000, so we have succeeded in cutting it by 90 percent.

Senator STEVENS. How bad was it for the Air Force, Mr. Coleman?

Mr. COLEMAN. I have been advised that it is $565,000.

Mrs. KANDARAS. For the Department of the Navy in 1995 it was $65,700 for the Navy side, zero for the Marine Corps.

Senator STEVENS. Well, that is better than before. When Senator Inouye and I pulled into Shemya we saw a bunch of barrels there on the side waiting for a plane. We were very lucky to get in that day—bad weather that period—and along comes EPA and fined the Air Force for storing contaminants along the runway. They were waiting there for transportation.

I never could understand that fine, but I do not understand having a reduction in the program and these high administrative costs and the problem of drainage by paying fines to other agencies. I would hope that you would keep us posted as to the extent of those fines. I think we should discourage these interagency fines. It just moves money from one program to another.

As I understand it, the EPA keeps some of it. It does not come back to the Treasury, but it makes no sense to fine an environmental program because someone in another agency does not like the way in which you are doing the environmental program. That is what bothers me most about it.

Let me ask you this. In terms of this development, when you relate to BRAC, do you have adequate authority to use the bases during the period of extended environmental cleanup, or do we have to wait until the environmental cleanup is finished before you can start letting the reuse authority or other agencies come along and start utilizing the portions of the facilities that can be used and are not really involved in the environmental restoration concepts?

Mr. COLEMAN. By means of an interim lease, by means of working with the regulatory agency and the LRA, we are able to what we in the Air Force call speedball jobs back into the base. As long as we are adhering to the improved cleanup method we are able to do interim leases, let people use the facilities while we are remediating.

Senator STEVENS. Is there existing authority for all three of you to do that? In the Navy, have you got it?

Mr. WALKER. Yes, sir.

Mr. COLEMAN. Yes, sir.

BRAC

Mrs. KANDARAS. Yes; one thing we actually cannot do is transfer property until it is cleaned up, but we have a lot of latitude with the leases, as Mr. Coleman discussed.

Senator STEVENS. I am not talking about the part that has to be cleaned up. There are substantial portions of these bases that do not need any cleanup. As a matter of fact, they are in fine shape and they can be—the runway at Adak, some of the facilities in the King Salmon area that I know of—I do not know of anybody that wants to use Shemya except Senator Inouye. He likes to visit there.

Anyway, my point is, I think there ought to be some revenue base there to help in terms of the environmental cleanup and the BRAC closing process, if we could move more expeditiously to encourage the reuse authorities to plan to use the facilities to try to move in.

Mr. WALKER. I think really they are doing it. They are working on a plan that they will be using the gym, they will be using the swimming pool, they will be using some of the library facilities and others.

That is our plan. Everywhere we can.

Senator STEVENS. But are you generating any revenue out of it?

Mr. WALKER. Through leases, yes, sir.

Senator STEVENS. Are you?

Mrs. KANDARAS. Some. We can get exact numbers for you.

Senator STEVENS. Do you have to give it back to us or can you use it back there at the base?

Mr. COLEMAN. We can use it wherever we want.

Senator STEVENS. Do you know? I think the use of the facilities ought to generate some basic income to accelerate the cleanup, if you can do it.

Mr. COLEMAN. The income being the sale?

Senator STEVENS. I am talking about the lease revenue from the use of the facilities, maybe a theater that is there on a base that can be leased out.

Mr. COLEMAN. We can provide you with what the Air Force has.

Senator STEVENS. Tell us for the record, if you will.

[The information follows:]

REVENUE BASE

In the BRAC Suspense Account, there is currently $3.1 million in lease revenue generated from property at Air Force bases closed through the Defense Base Realignment and Closure process.

The Navy has 45 interim leases and licenses generating revenue based on fair market value of real property at BRAC locations. Many of these are sort term agreements. The Navy will earn approximately $3 million in cash this year from these licenses and leases. This money is credited to the BRAC account.

REGIONAL CONTRACTS VERSUS LOCAL CONTRACTS

Senator STEVENS. Again, my apologies for not being here at the opening. We do have some questions that people wish to submit. Do you have any further questions, Senator Inouye?

Senator INOUYE. Just one, sir. If I may follow up on your initial round of questions with just a footnote. On the question of regional contracts versus local contracts, we find that we do not provide a level playing field because a local contractor would have to pay State taxes, an outside contractor does not have to pay State taxes, and in the bidding process it makes it a little rough. So I hope that will be taken into consideration.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Secretary Kandaras, a few minutes ago you were explaining how the Navy's own ship was shredding paper and putting it in water or whatever you did, packing it, and then disbursing it into the seas, is that correct?

Mrs. KANDARAS. That is a prototype that we are looking to use and install under that program?

Senator SHELBY. You are testing it?

Mrs. KANDARAS. Yes?

Senator SHELBY. Why would you put it in the sea? Why, if you go through the process—and I am just asking you a question for information. Why, if you went so far as a user of paper that you shredded the paper, you treated it with water, or whatever you do, and I assume you compacted it in some way, why would you put it in the water? Why not bring it ashore when you return and recycle it?

Mrs. KANDARAS. It is a question of sheer volume, and what we are able to store on the ship?

Senator SHELBY. But you have it there to begin with.

Senator STEVENS. These ships are out for 6 month?

Senator SHELBY. I know. It is just a question.

Mrs. KANDARAS. Yes, sir; it is a question of storage. We have looked at other items, such as incineration, and out of all of the various ideas of what could be used, where we believe that the pulper-shredder is our best solution?

Senator SHELBY. All right. Thank you.

Senator STEVENS. Thank you very much. All three of you have extensive responsibilities in my State, and we will be pleased to welcome you sometime between June 1 and September 1. It is obvious why. It is going to be a great year.

Mike, I know you are going down to Whittier. Let us talk about the Buckner Building and those fuel tanks when you are there, would you, please?

Mr. WALKER. Yes, sir.

Senator STEVENS. Thank you all very much. We appreciate it.

PLANNING AND EXECUTING

We now move to the next panel. I want to welcome Gen. Arthur Williams and Rear Adm. David Nash. These are the people that we have invited to discuss the Department's plans for planning and executing the contracts for environmental remediation.

The Corps of Engineers of the Army and the Navy Facilities Engineering Command are responsible for the environmental policies that we discussed with the first panel, and we have had in recent years use of these regional multi $100 million contracts.

The TERC, the RAC contracts put environmental policy and remediations basically into a few huge private entities, and I have questioned that in the past. We made some provisions in the bill last year, and that is why we have asked you two gentlemen to come today to see what has been done since the committee discussed this and put specific provisions in the 1996 bill, so let me see if you have statements.

General Williams, do you have a statement you would like to make?

STATEMENT OF LT. GEN. ARTHUR E. WILLIAMS, COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS

General WILLIAMS. Yes, Mr. Chairman, I do.

Mr. Chairman, members of the committee, I am Art Williams, U.S. Army, Chief of the U.S. Army Corps of Engineers. I do appreciate the opportunity to provide testimony today on the environmental cleanup mission of the U.S. Army Corps of Engineers. In particular, I will briefly outline the corps' contracting policy in support of our environmental cleanup mission.

CORPS OF ENGINEERS MISSION

The Corps of Engineers has historically provided the Army and other Department of Defense—DOD agencies with military construction support services. For our environmental restoration work we have continued our tradition of service by capitalizing upon our existing construction engineering capabilities, and we provide a full range of remediation services from site investigation to site closeout.

For fiscal year 1995, the corps managed and executed an environmental cleanup mission which exceeded $1.3 billion, and this year we would again execute a little bit over $1 billion in environmental cleanup.

The corps provides comprehensive environmental restoration services for the Army, for DOD, Environmental Protection Agency [EPA], Department of Energy, and other agencies. We also provide environmental restoration support to the Army for their active installations program and the base realignment and closure, which we have been discussing, and we serve as DOD's executive agent for the formerly used defense sites, or FUDS, as we refer to it.

In addition, upon request we perform cleanup for the Air Force and Defense Logistics Agency. Our cleanup capability stems from our early support in the EPA Superfund program which began, for the corps anyways, in 1982, and it continues today as an important part of the corps' cleanup program.

TOTAL ENVIRONMENTAL RESTORATION CONTRACT [TERC] CONTRACTS

We also provide environmental restoration services to non-DOD agencies, including the Commodity Credit Corporation, Farm Services Agency, the Economic Development Administration, Federal Aviation Administration, and Federal Emergency Management Agency, Department of Energy, and Department of Commerce.

That is a background on the corps' environmental cleanup missions. I will briefly describe our environmental contracting effort. All of the corps contracting procedures comply with the Competition in Contracting Act and the provisions of the Federal acquisition regulations.

One of our contracting tools, known as TERC, or total environmental restoration contract, has been successfully used to support cleanup for the Army and the Air Force base realignment and closure, Department of Energy, and Superfund sites.

The TERC is a flexible environmental response contract that permits a single contractor to provide full hazardous, toxic, and radioactive waste cleanup services from cradle to grave, as we refer to it, at an installation through indefinite delivery, indefinite quantity contracts, with cost reimbursement delivery orders for corps customers.

The TERC contracts provide a base of 4 years with two 3-year options. TERC will not replace traditional contracting tools, but will be used for certain high priority complex, time-sensitive cleanup requirements.

Not every hazardous, toxic, or radiological waste project is appropriate for TERC, and no one method is appropriate in all circumstances. TERC complements our existing tools and complies with the Competition in Contracting Act.

The need for establishing this new contracting tool was documented in a detailed acquisition plan developed in close coordination with the Office of Deputy Assistant Secretary of the Army for

Procurement. Our acquisition plan was approved by that office in January 1993, and so far we have awarded in the Corps of Engineers 11 TERC contracts nationwide.

Each TERC must have a specified anchor installation that requires HTRW remediation. Other installations may also be specified in the contract if it is anticipated that work will be accomplished using the TERC.

The projected workload for the anchor and the specified installations form the basis for the estimated contract amount. The TERC will also have a specified geographic boundary for adding sites that meet criteria established in the TERC management plan.

The key objective in the TERC acquisition strategy is the development of small business and small disadvantaged business firms in the HTRW industry. Utilization in these firms is a significant factor in the source selection process, and this is clearly stated in our request for proposals.

Prior to award of the contract, a small business and a small disadvantaged business subcontracting plan is negotiated which contains the goals for the total dollars to be subcontracted, and the percentage of these dollars to be awarded to the small business and the small disadvantaged business firms.

After award, compliance with this plan is one of the elements used in evaluating contractor performance and fee determinations on subsequent delivery orders.

We use a mix of several types of contracts to accomplish our environmental restoration mission. Currently, TERC's are used for about 20 percent of our total environmental restoration work, with the majority of the cleanup being accomplished through our other contracting tools.

Senator STEVENS. Is that dollarwise or a budget number?

General WILLIAMS. Dollarwise.

PREPARED STATEMENT

Sir, this completes my brief opening testimony. I appreciate the opportunity to testify, and I will try to answer your questions.

Senator STEVENS. Thank you.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. ARTHUR E. WILLIAMS

Good morning. I'm LTG Arthur E. Williams, Chief of Engineers, U.S. Army Corps of Engineers, and I appreciate the opportunity to provide testimony on the environmental cleanup mission of the U.S. Army Corps of Engineers. In particular, I will briefly outline the Corps' contracting policy in support of our environmental cleanup missions.

The Corps of Engineers has historically provided the Army and other DOD agencies with military construction support service. For our environmental restoration work, we have continued our tradition of service by capitalizing on our existing construction and engineering capabilities. We provide a full range of remediation services from site investigation to site close-out.

For fiscal year 1995, the Corps managed and executed an environmental cleanup mission which exceeded $1.3 billion. This year we should again execute over $1 billion in environmental cleanup.

The Corps provides comprehensive environmental restoration services for the Army, DOD, EPA and Department of Energy, and other agencies. We also provide environmental restoration support to the Army for their Active Installations Program and BRAC, and we serve as DOD's Execution Agent for the Formerly Used Defense Sites (FUDS) Program. In addition, upon request, we perform cleanup for the Air Force and the Defense Logistics Agency. Our capability stems from our early support in the EPA Superfund Program, which began in 1982, and continues to be a key cleanup program for the Corps.

We also provide environmental restoration services to non-DOD agencies, including the Commodity Credit Corporation, Consolidated Farm Services Agency, Economic Development Administration, Federal Aviation Administration, Federal Emergency Management Agency, Department of Energy, and Department of Commerce.

With that as a background on the Corps environmental cleanup missions, I will briefly describe our environmental contracting effort. All of the Corps contracting procedures comply with the Competition in Contracting Act and the provisions of the Federal Acquisition Regulations. One of our contracting tools, known as TERC, Total Environmental Restoration Contract, has been successfully used to support cleanup for the Army, Air Force, BRAC, DOE, and Superfund sites. The TERC is a flexible environmental response contract that permits a single contractor to provide full hazardous, toxic, and radioactive waste (HTRW) clean-up services, cradle-to-grave, at an installation through indefinite delivery/indefinite quantity (ID/IQ) contracts with cost reimbursement delivery orders for Corps' customers. The TERC contracts provide a base of four years with two three year options. TERC will not replace traditional contracting tools, but will be used for certain high priority, complex, time sensitive clean-up requirements. Not every HTRW project is appropriate for TERC, and no one method is appropriate in all circumstances. TERC complements existing tools and complies with the Competition in Contracting Act.

The need for establishing this new contracting tool was documented in a detailed Acquisition Plan developed in close coordination with the Office of the Deputy Assistant Secretary of the Army for Procurement (DASA(P)). The Acquisition Plan was approved by DASA(P) on 19 January 1993. So far, we have awarded 10 TERC's nationwide.

Each TERC must have a specified "anchor installation" that requires HTRW remediation. Other installations may also be specified in the contract if it is anticipated that work will be accomplished using the TERC. The projected workload for the anchor and specified installations form the basis for the estimated contract amount. The TERC will also have a specified geographic boundary for adding sites that meet criteria established in the TERC management plan. A key objective in the TERC acquisition strategy is development of Small Business and Small and Disadvantaged Business (SB/SDB) firms in the HTRW industry. Utilization of these firms is a significant factor in the source selection process and this is clearly stated in the Request For Proposal (RFP). Prior to award of the contract, a SB/SDB Subcontracting Plan is negotiated, which contains goals for the total dollars to be subcontracted and the percentage of those dollars to be awarded to SB/SDB firms. After award, compliance with this plan is one of the elements used in evaluating contractor performance and fee determinations on subsequent delivery orders.

We use a mix of several types of contracts to accomplish our environmental restoration mission. Currently, TERC's are used for approximately 15 percent of our total environmental restoration work, with the majority of the cleanup being accomplished through our other contracting tools.

Thank you again for this opportunity to testify. I would be glad to answer any questions you may have regarding the Corps of Engineers environmental restoration program.

BIOGRAPHICAL SKETCH OF LT. GEN. ARTHUR E. WILLIAMS

Lieutenant General Arthur E. Williams became the 48th Chief of Engineers and Commander of the U.S. Army Corps of Engineers on August 24, 1992.

Army Corps of Engineers missions include construction and environmental restoration on military installations, and the Army's vast civil works program. The Corps also assists in recovery of natural disasters, regulates work in the nation's waterways and wetlands, conducts research and development, serves as the Army and Air Force real estate agent, and provides engineering services to 30 other Federal agencies. The Chief of Engineers is the senior staff engineer for the Army.

General Williams is a 1960 graduate of St. Lawrence University in Canton, New York, where he earned a bachelor's degree in mathematics. In addition, he holds a bachelor's degree in civil engineering from Rensselaer Polytechnic Institute in Troy, New York, a master's degree in civil engineering/economic planning from Stanford University in Stanford, California, and an Honorary Doctorate of Engineering from Rensselaer Polytechnic Institute.

General Williams is also a graduate of the Engineer Basic and Advanced Officer Courses, the U.S. Army Command and General Staff College, and the U.S. Naval War College. He is a registered professional engineer in the state of Minnesota and is a member of several national engineering and honor societies.

Prior to his selection as Chief of Engineers, General Williams served as the Director of Civil Works at Corps Headquarters. Other Corps assignments included Commanding General for the Corps' Lower Mississippi Valley Division and President of the Mississippi River Commission; Commanding General, Pacific Ocean Division; Chief of Staff, Headquarters; and Commander, Sacramento District. Key command and staff positions included Commander, 44th Engineer Battalion, 2nd Engineer Group, United Nations Command/U.S. Forces, Korea/8th U.S. Army, Korea; Personnel Assignment Officer and later, Chief Assignment Branch, Colonels Assignment Division, Officer Personnel Management Directorate, U.S. Army Military Personnel Center; and Chief of Plans and Operations Branch, United Nations Command/U.S. Forces, Korea. General Williams served two tours in Vietnam where he was a company commander in the 87th Engineer Battalion, and later, operations officer of the 577th Engineer Battalion.

His military decorations include the Distinguished Service Medal, the Legion of Merit (five awards), the Bronze Star Medal (two awards), and the Defense Meritorious Service Medal.

General Williams is a native of Watertown, New York, and is married to the former Carole Waite of Watertown. They have three children, Scott, Christina, and Cheryl, plus four grandchildren.

STATEMENT OF REAR ADM. DAVID J. NASH, COMMANDER, NAVAL FACILITIES ENGINEERING COMMAND

Senator STEVENS. Admiral Nash.

Admiral NASH. Thank you, Mr. Chairman. I do have a statement. I have a written statement that I would ask be entered into the record, if you will.

Senator STEVENS. We will put both statements into the record.

Admiral NASH. Thank you, sir.

Mr. Chairman, distinguished members of the committee, I am Rear Adm. David J. Nash, Commander, Naval Facilities Engineering Command.

The Naval Facilities Engineering Command, referred to as NAVFAC, is charged with the environmental cleanup of Navy and Marine Corps installations worldwide. I am pleased to appear before you today to talk about our Department of the Navy environmental contracting program.

In the statement I am submitting today I cover the history of the Navy's environmental contracting program, how we evolved from strictly fixed price contracts to the development of a toolbox of contract types that we use today. That toolbox has been developed based on our experience during the last 7 years of environmental contracting.

In the early stages of the environmental remediation program, the firm fixed price contracts alone did not provide the flexibility we needed for the many unknowns and varying conditions that we encountered. Therefore, we developed a number of indefinite quantity and cost-type contracts to address a variety of varying and unknown conditions. This was the most efficient manner to employ the technical expertise necessary to define the environmental cleanup requirements and to design the appropriate remediation solution.

As the program matures, and we get additional information based on the work already completed, use of firm fixed contracts will gradually increase. We want to ensure that we have in place the appropriate types of contracts to best address site-specific issues throughout the Navy.

Of paramount importance in the cost contracting is the use of a number of effective cost-control initiatives. We use things like an award fee. We have rate ceilings. We have detailed invoice reviews. We have several outside agencies to come and look at how we are spending our money.

CONTRACTING STRATEGY

I have outlined our Navy's environmental contracting strategy, the goal of which, in my opinion, is to provide quality, timely, and cost-effective remediation for the Department of the Navy. The integration of the various types of contracts in our toolbox is really the key. There is no one right tool for every job, so we take this portfolio of innovative contract options that afford us more flexibility in finding the best remediation for each site, and it truly does go site by site.

In addition to the large comprehensive long-term environmental action Navy contract and the remedial action contracts, which we talked about previously, we have numerous price indefinite quantity contracts, including environmental job order contracts. Our most visible contracts, the comprehensive long-term environmental action Navy and the remedial action contracts, are with larger national corporations, as you say. However, we have also encouraged the participation of small and small disadvantaged and women-owned businesses, which since 1988 we have received over $850 million of combined subcontract awards to these comprehensive long-term environmental action Navy and remedial action contracts, which amounted to 2 billion dollars' worth of work.

In addition to this 2 billion dollars' worth of work that went to comprehensive long-term environmental action Navy and remedial action contracts, we have had another $1 billion of contracts that have been done on a firm fixed price mode.

The future of environmental contracting depends on continued innovation and prudent application of various contract types tailored for the site-specific requirements. With the improved information that we gain through experience on environmental programs to date, work such as underground storage tanks removal, asbestos abatement, tank cleaning, and air and water compliance studies can frequently be accomplished more effectively through localized fixed price, indefinite quantity contracts.

PREPARED STATEMENT

Sir, our ultimate goal is to return these sites to productive use by the Navy and Marine Corps at the least possible cost. This can only be done with a toolbox of various contract types that we have developed, and I am very proud of our accomplishments to date.

Sir, this concludes my oral remarks, and thank you for the opportunity.

[The statement follows:]

PREPARED STATEMENT OF REAR ADM. DAVID J. NASH

Mr. Chairman and distinguished members of the Committee, I am Rear Admiral David J. Nash, Commander, Naval Facilities Engineering Command. The Naval Facilities Engineering Command [NAVFAC] is charged with the environmental cleanup of Navy and Marine Corps installations worldwide. I am pleased to appear before you today to talk about the Department of the Navy's environmental contracting program.

My statement today covers four areas: types of contracts used in environmental contracting and cost control initiatives implemented; Navy Environmental contracting strategy and integration of these contracts; subcontracting and the impact of our strategy on small businesses/small disadvantaged businesses; the future of environmental contracting.

Throughout this statement, I hope to show you how we are using a variety of contracting vehicles to meet our environmental goal which is to provide timely, cost-effective remediation for the Department of the Navy.

TYPES OF CONTRACTS

Nearly all environmental cleanup work, including that done at Base Realignment and Closure bases, is done by contract with the private sector. It has been the policy of the Naval Facilities Engineering Command to make use of a variety of contract types in order to choose the method which makes the most sense from business and technical standpoints for each instance of remediation. We have encouraged our contracting officers to be innovative in their creation of new or hybridized contract types if none existed to fit their particular needs.

In the early days of remediation we experienced a number of significant problems with the use of the time-honored firm fixed price sealed bid method. These included: excessive number of change orders, contingency costs included in bids, constant redirection of the contractor, numerous contract claims, and lack of continuity in projects/processes due to numerous "hand-offs" from one contractor to another (which also resulted in decreased ability to overcome the "learning curve" with its concomitant costs of time and money).

In July 1988 we submitted an acquisition plan to the Secretary of the Navy for approval; in that plan we highlighted several main contract types. Our flexibility increased greatly as we added cost-reimbursement type contracts to our portfolio. As we are today, we were concerned then about controls we could build into our processes to help control cost.

Cost control initiatives

Several key cost control procedures were implemented prior to the award of any cost-reimbursement contract.

Cost plus award fee type.—The award fee process provides the contractor the opportunity to earn fee commensurate with optimum performance as defined by the Fee Determination Official for that award fee evaluation period (i.e., focus can be shifted on a semi-annual basis with required 30 days notification to the contractor). Fee evaluation criteria include: the contractor's commitment to accelerate the overall cleanup process, responsiveness to overall Program requirements (not just high dollar value contract task orders), effective use of resources/adequacy of staffing, effective coordination of subcontractors and consultants, timely completion, technical competence and innovation resulting in saved time/dollars, accuracy and timeliness of current and projected cost reporting, successful partnering with other contractors and regulators, and cost control measures. The award fee available to the contractor is not guaranteed, but based on a periodic review of performance. It ranges from 0 percent to 10 percent of the negotiated cost of the contract task orders. NAVFAC feels that the contractors have achieved their successes to date as a result of the quality, cost control, and innovation incentives provided in our award fee plans. In turn, this has reconfirmed our belief that in making quality a significant source selection criterion, we have chosen the best firms for our contracts.

In many of its cost reimbursement contracts, a "ceiling" or "cap" was negotiated to preclude increases in rates charged by the contractors so that any areas of "cost growth" would be contained to the changing requirement of the remediation and could be managed/approved by the government.

NAVFAC developed two cost-reimbursement contract courses for its technical program managers and contract administrators. To date, more than six hundred people have been trained worldwide.

Special contract administration manuals for both major contract types were published and distributed to the field contracting offices. An Environmental Contract Quality Management Guide was also issued.

NAVFAC Headquarters provides a contract Assist Team whenever requested by the field. It also makes periodic routine visits to each of NAVFAC's nine Engineering Field Divisions/Activities.

Program management is conducted by environmental engineers and contract administration is regionalized; both are considered to benefit from "hands on" attention. The relatively small number of contracts resulting from our regionalized strategy has served to reduce the program management cost for these contracts on both the contract and government side. Our goal is not to exceed 10 percent of the contracting cost in program management fees; in practice, we are seeing only between 6 and 9 percent spent in program management by the contractors.

DERA and BRAC funding is centrally managed at NAVFAC Headquarters. This enables us to match contract capacity and needs with available resources nationwide so as not to either end up in a position where work cannot be executed due to lack of contract vehicle or unnecessarily "exercise" contractors by awarding contracts which will not see work awarded against them.

A strict invoice review process was detailed and published for use. Invoices contain details by specific task order so as to facilitate verification and acceptance.

In addition to using independent [Defense Contract Audit Agency] auditors, NAVFAC relies on its own personnel and pro-active management to ensure adequate cost controls. DCAA provides a full-time staff Procurement Liaison Auditor to NAVFAC, who plays a significant role in coordination between field audit offices and contracting offices administering the cost reimbursement contracts and analyzes industry trends, both positive and negative, to disseminate information to the field.

"CLEAN" (Comprehensive Long-Term Environmental Action Navy)

The CLEAN contracts are professional services contracts and were intended for site assessment, remedial investigation, feasibility studies and design of remedial action. The Navy's interpretation of language in CERCLA requires selection based on technical competency ("Brooks Act" selection procedures). These contracts were awarded for a period of one year with nine option years and range in value from $100–$260 million. The first contract was awarded in June 1989; the last contract will expire in January 2006. There are currently fourteen CLEAN contracts with a total dollar capacity of $2.66 billion. Of that original figure, $1.18 billion remains. CLEAN contracts are appropriate for use when scope is not precisely definable, regulatory requirements may change, work is required to be phased, quality is a prime consideration or an expedited response is needed.

"RAC" (Remedial Action Contracts)

The RAC's are construction contracts for remediation and include Davis-Bacon wage determinations. They also include Service Contract Act wage determinations for increased flexibility. The RAC's were awarded through source selection procedures based on the best value of technical ability, management of multiple sites and cost control procedures/successes. They were awarded for a period of one year with four option periods and range in value from $75–$300 million. There are currently ten RAC's with a total dollar capacity of $2.23 billion with a remaining capacity of $1.68 billion. RAC's are also appropriate for use when an imprecise scope or direction exists and other conditions as prescribed by the Federal Acquisition Regulations exist for the use of cost contracts. The first RAC was awarded in June 1993 and the most recently awarded will expire in November 2000.

Environmental job order contracts

The Environmental Job Order Contract was developed and first awarded at the Navy Public Works Center in San Diego. "Job Order" contracts, the concept of which includes several thousand pre-priced fixed-price line items in order to facilitate "ordering a job" has been successfully and widely used in maintenance and repair by for the last decade. PWC San Diego adapted this concept for environmental remediation tasks which are easily fixed priceable, some of which included air and water sampling, tank cleaning and removals, soil testing, and soil remediation. The original contract was awarded for two years with a capacity of $5 million. Strong performance (including excellent knowledge of local regulations, quick response, and few change orders) by the contractor was received, with the result that a second contract is in the solicitation phase. Other Public Works Centers are also in the process of awarding localized Environmental "JOC" contracts.

Fixed price, unit price (indefinite quantity) contracts

At many individual naval installations worldwide, a number of smaller indefinite quantity contracts have been put in place. Most are for individual specialties, e.g., asbestos removal, tank cleaning, or compliance evaluations. Although the indefinite quantify indefinite delivery type of contract affords flexibility in terms of quick response time, it is also possible to advertise and award individual fixed price contracts for specific well-defined remediation.

Laboratory testing contracts.—As an adjunct to the actual remediation contracts, there are many laboratory testing contracts across the country, usually fixed-price, which provide sampling, quality assurance and verification services to the Navy.

NAVFAC CONTRACTING STRATEGY

There are several key features to the Navy's environmental contracting strategy, which include acquisition planning, separation of design from remediation, phasing to promote cost control, the integration of CLEAN's/RAC's and development of long-term relationships, partnering, and trust and respect.

Acquisition planning.—Thorough acquisition planning is the key to any successful procurement, but it is especially critical in environmental remediation when risk—health, safety and financial—can be so variable. The relatively large number of contracting vehicles available to program managers/contracting officers greatly increases the odds of successful acquisition planning; it also increases flexibility when any conditions or assumptions change.

Separation of design from remediation.—There are two major reasons why the Navy strongly believes in the separation of design from actual remediation. The first is the belief that the regulations ("Brooks Act" and CERCLA) call for procurement of design by licensed professional engineers, which is subject to technical competition. More important is the belief that "two sets of eyes" looking at the situation results in more expertise as well as better checks and balances in the system. It reduces the likelihood of goldplating and reduces conflicts of interest. There is a challenge, incentivized in the award fee process, of finding faster, more innovative ways to accomplish the remediation. In order to reduce potential conflicts between the contractors, the Navy is careful to choose firms committed to "partnering," and always reinforces the common objective in its day-to-day approach in dealing with the contractors. NAVFAC annually hosts a joint CLEAN/RAC conference to help build relationships as well as discuss lessons learned, both good and bad.

Phasing to promote cost control.—To the extent that it makes good business sense and is in consonance with federal fiscal law, the Navy believes in phasing its environmental work. In the cost reimbursement situation, it prevents contractors from proceeding too far down a potential "wrong path," spending the government's money before technical or programmatic assessments can be made. It also serves to promote cost control since multi-tier subcontracts (including administrative expenses and profit/fees) are not required to satisfy the various stages of work.

Integration of CLEAN's/RAC's.—In addition to building relationships between the contractors, we are working to reduce the feeling of a "hand-off" occurring between the contractors. In order to do this, we insist that the RAC contractor be involved with the upfront site assessment or design with the CLEAN contractor. This reduces the chance of the RAC contractor having to revalidate work before proceeding with remediation and ensures a smoother transition later on. The longevity of the contracts further necessitates a strong working relationship between the two contractors.

Partnering.—In addition to the CLEAN/RAC working relationship, we strive to include federal, state and local regulators (as appropriate) in the decision process. This greatly minimizes disagreements and promotes quicker approvals of the remediation strategy. Each Engineering Field Division/Activity holds annual "partnering" meetings. This kind of communication provides a valuable opportunity to discuss those areas which the major players associate with "risk" as it is defined in terms of study/design, remediation, and regulatory issues.

Trust and respect.—The Navy selects firms they believe to be the best professionals in the business. We also have a well-educated and trained team of government managers and administrators. Mutual respect and trust is a key ingredient in the success we have enjoyed to date in the remediation process.

A special note on base realignment and closure.—All our contracts awarded since April 1992 (the implementation date) contain DFARS clauses giving preference to local firms and local hires. This preference was part of the source selection criteria and is included in award fee plans for the contracts. These clauses have proven effective: a case in point is Alaska where, over the last three years, of the $24.8 million spent for remediation in Alaska, $19.9 million was awarded to Alaskan firms and/or performed by Alaskan residents. The contracting agent for the state of Alaska (located in Poulsbo, Washington) has requested Assistant Secretary of the Navy redefinition of the term "vicinity" in these clauses to include the entire state, which would further increase opportunities for Alaskan firms.

SUBCONTRACTING AND OTHER OPPORTUNITIES FOR SMALL BUSINESSES

The Naval Facilities Engineering Command has long been a leader in its use of small and small disadvantaged business firms. Accordingly, we recognized upfront the impact that our environmental contracting strategy would have not only on our small business statistics, but on our relationships with these contractors as well. We have taken care to increase the possibilities for small businesses throughout our environmental contracting process.

Methods

There are several main methods/areas we rely on in attempting to maximize subcontracting and other opportunities.

Publicity.—We use a variety of forums to help publicize our environmental remediation opportunities, including Commerce Business Daily, coordination with the Small Business Development Center (Small Business Administration), and Procurement Technical Assistance Center (Department of Defense), the Minority Business Development Center and Automatic Business Enterprise Locator System (Department of Commerce), and many procurement fairs across the country throughout the year. We also keep a large data base of bidders and access national systems maintained by the Army Corps of Engineers. Additionally, we make use of various DON and DOD environmental "electronic bulletin boards" and other Internet sites publicizing cleanup opportunities. These help to defray costs incurred by small business contractors by giving them an opportunity to view the Commerce Business Daily without the expense of buying a subscription. NAVFAC personnel participate in various environmental and procurement conferences to discuss opportunities to do business with NAVFAC directly, by subcontract, or through the mentor-protégé program. Outreach conferences jointly sponsored by NAVFAC and several CLEAN/RAC contractors were held in communities with large Base Realignment and Closure environmental restoration projects.

Subcontracting plans.—Formal subcontracting plans are required of any large business contractor for service contracts over $500,000 and construction contracts over $1,000,000. (Virtually all of the CLEAN's and RAC's are covered.) Goals are included in these plans for small business, small disadvantaged business, woman owned small business and historically black colleges universities/minority institutions as subcontractors. Subcontracting statistics are submitted to the contracting officer every six months and the success with which a contractor meets his subcontracting goals is included in the fee evaluation process under the cost plus award-fee arrangements. Many of the CLEAN/RAC contracts were awarded prior to the establishment of the 5 percent woman-owned business goal in 1994.

Mentor-protégé program.—The purpose of the Mentor-Protégé Program (Public Law 101–510) is to increase the overall participation of small disadvantaged subcontractors and foster long-term business relationships between these firms and the prime contractors. Forms of assistance provided by the mentor to the protégé include general business management, engineering and technical services, non-competitive award of subcontracts to protégés, payments of progress and advance payment, loans or cash in exchange for ownership interest. Protégé firms must be small disadvantaged businesses, qualified native American Indian, qualified native Hawaiian organizations or organizations that employ the severely handicapped. Mentor firms are approved by the Under Secretary of Defense Office of Small and Disadvantaged Business Utilization. Of NAVFAC's three approved mentor firms, all are environmental contractors (OHM Corporation, International Technology and ABB Environmental Services, Inc.) We feel that our use of the large remediation contracts has enabled us to implement this program to provide opportunities which would not otherwise have been available in only fixed price contracting vehicles. Informal mentoring is also widely practiced.

Navy environmental leadership program [NELP].—NELP is a Navy initiative to find cheaper, better, faster ways to achieve environmental compliance at Navy bases. This program is as a result of an initiative of the CNO in fiscal year 1993 and was tested at NS Mayport, FL and NADEP North Island, CA. Beyond the CLEAN/RAC process, the Navy initiated a competitive program to discover and test innovative technologies in support of NELP. "Sources sought" synopses are published in the Commerce Business Daily for new methods (generally, technologies between the "exploratory" and "advanced" development states), which are then tested at appropriate sites. Successful technologies are then exported to the RAC contracts. In addition to promoting opportunities for small businesses, the NELP will increase the base of innovative technologies. In fiscal year 1995, 21 percent of the technologies used by NAVFAC contractors were considered "innovative." The knowledge gained here can be exported as other opportunities for small businesses.

Small business innovation research program.—The Naval Facilities Engineering Service Center in Port Hueneme, CA is an active participant in this program in the area of new technologies for base cleanup.

NAVFAC assistance.—Across the NAVFAC organization, there are highly qualified full and part-time personnel providing small business assistance and counseling.

Other contracts.—In addition to the $1.9 billion cumulatively obligated under the CLEAN/RAC contracts, it is estimated that approximately $125 million more each year is obligated by other remedial action contracts of the types mentioned above. A conservative estimate is that 80 percent of this work was awarded to small businesses.

Statistics

The CLEAN's and RAC's obviously provide the greatest subcontracting opportunities. Based on actual expenditures to date, approximately 40 percent of the work, or $850 million, has been subcontracted. Although RAC contracts provide a somewhat greater opportunity for subcontracting, due to the local performance and construction type work, CLEAN work has also been subcontracted to a large extent. Of the cumulative combined subcontracted dollars: 47 percent is subcontracted to large businesses; 45 percent is subcontracted to small businesses; 7 percent is subcontracted to small disadvantaged businesses; 85 percent is subcontracted to woman owned small businesses.

Notification to the Congress and state/local authorities.—The newly required notification of award of contracting actions at the $1 million level may also serve to increase subcontracting opportunities for local and small business firms.

THE FUTURE OF NAVY ENVIRONMENTAL CONTRACTING

CLEAN/RAC contracts

With the reduction of restoration dollars in the outyears, it is anticipated that the current capacity on CLEAN and RAC contracts is sufficient, but will be reevaluated on an on-going basis. Should additional capacity be necessary, it is speculated that perhaps smaller contracts covering more geographic area may be appropriate to pick up the overflow.

Fixed price contracts.—Experience gained through the cost reimbursement contracts has enabled many contracting offices to conclude that programs such as Underground Storage Tank removal and remediation can be successfully accomplished in many cases under smaller fixed price contracts. Other programs such as asbestos abatement, air and water studies, compliance evaluations, and tank cleaning will continue to be placed predominantly under fixed price [usually small business] contracts. We expect the fixed price arena to be the area of growth in the next few years.

Work breakdown structure.—It is our policy to use the “Work Breakdown Structure” [WBS] initiative in awarding all our contract task orders. The WBS, a joint service initiative, is a matrix of cost components that are clearly defined from the smallest detail level and rolled up to the project cost level. This matrix provides the government the ability to easily identify and compare like cost details at any level among contractor executed projects. A result of this initiative is that it helps to move us from the cost-reimbursement to the fixed-price environment by providing detailed records of costs for different units of work. The Atlantic Division of the Naval Facilities Engineering Command has combined the data gathered in the last seven years into a centralized data base for use claimancy-wide in estimating costs.

CONCLUSION

The use of the CLEAN contracts, detailed plans and specifications, and on-site management has enabled us to increase fixed-price opportunities in this manner. For example, in the state of Alaska, $120 million is programmed for cleanup of Adak; it is anticipated that only 25 percent of this work will be under cost-reimbursement contracts. Following the resolution of the “vicinity” definition initiative, the contracting office will issue “sources sought” synopses to determine interested sources who are capable of entering into fixed price contracts for remediation in the state of Alaska. Similar efforts may be made in other areas of the country.

Our environmental contracting program supports the overall environmental program of the Navy, satisfies legal and civic obligations, makes good business sense, and accomplishes our mission of providing timely cost-effective remediation for the Department of the Navy. Our portfolio of contract vehicles maximizes flexibility for our contracting and program officers, providing a large number of avenues which can be tailored for each instance of remediation to best suit that set of circumstances. Our clear consistent approach has resulted in cooperation from federal and state regulatory boards, which has yielded an acceleration in the cleanup process. Our experience and successes grow each year as we expedite cleanup (and community reuse of property in the area of base closure locations) for a healthier, safer environment.

That concludes my statement. I would welcome any questions.

Senator STEVENS. Thank you very much. Obviously, I am not critical of you two personally, but I am critical of the process. Let me tell you, too, how I got into this, and I think the committee has heard about it before.

I was in a small town in Alaska, and a friend of mine who spent a substantial amount of time in the military, and is retired, an Alaska Native, asked me to take a ride with him, and we went out to look at a site. It was on a little hill outside of the town, and it had a bunch of transportable offices and buildings that could be used for living quarters, and it had a bunch of vehicles that had been brought in. It had a series of bright young people that were from all over the south 48, and they were planning the final phase of removing some of the 55-gallon drums that were used during World War II for human waste.

They had two helicopters. It was in summertime. They had trucks that were going out on these roads, which were not very good quality, but they were going out and they were picking up—the barrels were being delivered by the helicopters to the trucks.

Now, it just so happens that right after I came here—it is about 25 years ago—we put into effect a program to try and pick up those drums. Not just those particular ones, but generally the drums that had been left by the military all over the State of Alaska.

We put an incinerator in one of the small villages up in the Arctic. We made contracts with the local people to go out in the wintertime and find those drums and bring them to the roads using snow machines and they were stored through the time until they could be taken into town.

In the summertime they were run through the incinerator and then crushed, and the barrels were sold to Japan. It was all local people. The cost was almost infinitesimal compared to what the cost of this contract was in the village that I saw, in the small town I saw just a couple of years ago.

When I looked into it further, it was part of a national contract. I think it had been let somewhere in the Midwest, and this project was one that was apparently listed I think under the Superfund's concept, I am not sure. It was not a formal Federal area. It was just waste that had come from World War II.

PRIORITIES

General, you mentioned about high priority things that had very high urgency behind them. The barrels had been there for almost 50 years, and yet we were hiring helicopters, trucks, and people from outside the State that do not know that they are not supposed to drive across the tundra in the summertime anyway, and we just spent a lot of money.

That is what my friend wanted to show me. He is just a retired person paying taxes. He said, you know, right is right, Senator, but that is not right. We have a whole bunch of people here in town who do not have jobs. All of these people are flying into here, getting off the airplane, getting on these pickups, going off to work.

ALASKA TERC CONTRACT

Now, that meant to me that something is wrong with the system, and I started looking into it more, and I ran into the TERC and the RAC, and the Navy CLEAN program, and I found, as you say, that there is just a substantial number of these contracts that cover whole areas of the country.

They have no relationship at all to the people who have been working in the areas that are being closed now. They have contractors in those areas that used to contract on the bases. They have no future now. And here is this last transition money to clean up the area, and it is being awarded and handed out in six, seven, eight, nine—how big is it, General? How many States do your contracts cover?

General WILLIAMS. The TERC for Alaska only covers the State of Alaska. There are other TERC's that would cover more than one State.

Senator STEVENS. Well, that was not the case when I saw that place. Those were not Alaskans up there, and that was your project, too. I will take you to it, if you want, but that was not an Alaska contract.

General WILLIAMS. Maybe I misunderstood the question. The TERC contract that we have in Alaska is only for the State of Alaska.

Senator STEVENS. But Alaska must be covered by another contract, then, somewhere, because these people were up there and it was your contract.

General WILLIAMS. We have different types of contracts that are being used in Alaska in addition to the TERC.

Senator STEVENS. Mr. Cortese suggested perhaps the contract covered Alaska but it was awarded outside Alaska. Is that the case?

TERC CONTRACT FOR ALASKA

General WILLIAMS. The TERC contract for Alaska, that is correct, was awarded to Jacobs Engineering, which is out of California. They have five subcontractors, major subcontractors. All of them have permanent offices in Alaska. Three of them are small businesses.

Senator STEVENS. That is not the contract I saw. We will go into it later, but I want you to know the background of why I got into it.

Now, as I see BRAC again, see what has happened with BRAC, what have we closed, two out of three bases in the United States in this BRAC process? I am told it is closer to one-half, but in any event, the bases that were all over the United States are now being subject to remediation, and I think those contracts ought to give preference to the contractors in the area that used to have employment on those bases instead of dealing with some hypothetical ceilings that come from multistate contracts.

Can you show the multiple State contracts have saved money for the taxpayers?

General WILLIAMS. We have some experience in the Corps of Engineers TERC contracts that we have been using now since late 1993, so that is during that timeframe, and generally speaking if you are comparing TERC's and similar types of cleanup work that were done in other types of contracting, the TERC has shown that we are saving about 50 percent of the time and about one-third of the cost.

Senator STEVENS. Tell me how that is done. What you are really doing is contracting out the management of subcontracting, are you not? Is that not basically what a TERC is?

General WILLIAMS. Well, the TERC is one contractor, yes, sir, in our particular case.

Senator STEVENS. And if you did a series of contracts, you would handle them. This major contractor handles the subcontractors, right?

General WILLIAMS. The prime contractor, who in this case is Jacobs, has several subcontractors doing different things. The Corps of Engineer employees are managing the contract to ensure that what we have asked for and what we are paying for is, in fact, accomplished and received.

Senator STEVENS. I do not know Jacobs, and I do not want to get specific about anybody, but when you have a TERC contractor, do they enter the contracts with the subcontractors or don't they? Do you enter into the subcontractors?

General WILLIAMS. No; in the initial process, when we decide who we are going to award the prime contract to, as part of the negotiation process they have to submit a subcontracting plan, and the request for proposal says that the prime contractor must subcontract out at least 60 percent of the work to subcontractors, at least.

Senator STEVENS. And you can add areas to that. If another base closes you can add a project that was not even contemplated at the time the contract was entered, right?

General WILLIAMS. That is correct.

Senator STEVENS. And they last for 4 years with 2 or 3 year extensions?

General WILLIAMS. That is correct, sir.

Senator STEVENS. So for 10 years in this area there is one contractor that is going to be supervisor of all remedial contracts in the area?

General WILLIAMS. No, sir; that is not quite so. Let me try to break it apart in bits and pieces. The TERC contract that we are referring to is a 4-year base, and two 3-year options. If the contractor is not performing at the end of the 4-year period, for example, we do not have to pick up the additional options of 6 years. That is one part of the answer.

The other part is, there is other remediation taking place in the State of Alaska.

Senator STEVENS. Get away from Alaska, General. I am going to get disturbed. I am talking about the Nation.

General WILLIAMS. Right, and there are other places in the Nation where about 20 percent of the corps' remediation is done through these TERC contracts and about 80 percent is done by other contracts.

REMEDIATION

Senator STEVENS. When a project comes along after a TERC has been entered into in a four or five State area, who determines whether that new remedial project is going to go under the contract or not?

General WILLIAMS. That is done by the Corps of Engineers, the customer, and the people who have the site to be cleaned up. They sit down and figure out the best contracting tool to use for that specific instance. In some cases it may be TERC. In some cases it may not be. Twenty percent corps-wide now is going by TERC contracts.

Senator STEVENS. Well, we do not have jurisdiction over Superfund unless it is on a military base, so let us just get away from Superfund unless it is on a military base, but in terms of bases that are being closed, under your jurisdiction, which I understand to be Air Force and Army, right?

General WILLIAMS. I do the Army—well, let me backtrack. For the active installation Army posts, the installations can decide who they are going to hire for their cleanup. In many cases they are using the Corps of Engineers.

At the present time, the corps is managing about 20 percent of the Air Force active installation cleanups.

Senator STEVENS. All right, but I am basically talking about base closure areas, and the process, the cleanup that is taking place on them. They are all under you, right?

General WILLIAMS. They can be. They can be done by others. The installation will determine who they are going to hire, so to speak. In many cases they come to the Corps of Engineers.

If the customer comes to the Corps of Engineers to say we need something cleaned up, whether it is BRAC, an active installation for the Air Force or whomever, then we look, working with the customer, to decide what is the situation you have and what is the best contracting tool for that particular situation.

Senator STEVENS. Well, are you not the contractor for Army and Air Force bases that have been closed in the BRAC process?

General WILLIAMS. No, sir; not in all cases. For the cleanup, no.

Senator STEVENS. Well, how many of them do you have?

General WILLIAMS. I can provide the number that we are currently working on.

[The information follows:]

NUMBER OF ARMY AND AIR FORCE BRAC BASES WITH CLEANUP SUPPORTED BY THE U.S. ARMY CORPS OF ENGINEERS

The U.S. Army Corps of Engineers does BRAC environmental restoration cleanup at 63 Army installations and seven Air Force bases. The BRAC environmental restoration work the Corps performs includes Environmental Baseline Studies (EBS), BRAC Cleanup Plans (BCP), Site Investigations (SI), Remedial Investigation and Feasibility Studies (RI/FS), Removal Actions, Remedial Design (RD), Remedial Actions (RA), asbestos and lead-based paint surveys, unexploded ordnance (UXO) surveys and removals, and groundwater monitoring. The Corps, at the discretion of the customer, may be involved in all or only a portion of these cleanup activities. Other executors of the Army BRAC environmental restoration cleanup mission, include the Army Environmental Center, the installations, and the U.S. Army Center for Health Promotion and Preventive Medicine. The Air Force performs a substantial amount of BRAC environmental restoration work at its bases through its Air Force Center for Environmental Excellence.

CLEANUP CONTRACTS

Senator STEVENS. Of the ones that you are handling, are they all covered by these contracts that we have been talking about, the TERC contracts?

General WILLIAMS. No, sir; they are not all covered by TERC. They are covered by different contracting tools, one of which is TERC.

Senator STEVENS. How do you determine that they are cost effective under TERC?

General WILLIAMS. No. 1, by the cost, No. 2, by the time, No. 3, by the responsiveness to the customers. Time is of the essence in some cases as far as regulation or congressional law, or having to move out of the installation. Flexibility, the complexity of the situation.

We have found that because of the uncertainties that we have and the complexities of the situation, if you have one contractor that is taking it from cradle to grave, which is the term we use, you do not have the handoffs, and you do not have to have one contractor do part of the study, for example, or design, and when he finishes then you have got to advertise for another contract and bring another contractor on board to pick up where another one left off, so to speak.

So we have found, as Mr. Walker explained, part of the success of cleaning up more so that now we have got at least 65 and perhaps closer to 70 percent of our dollars that you are providing are being used for cleanup, part of that success is due to the TERC-type contract that we have that saves time and reduces the amount of claims that we have.

Senator STEVENS. What kind of claims? I really do not understand the saving time in terms of projects that are dealing with remediation of bases that are being closed. What is that aspect of time?

General WILLIAMS. One of the contracting tools that can be used is where you have one contractor that goes out, analyzes the situation, does the design, then the investigation, determines the alternatives, and does the design. Then you have that information and you go out and advertise for another contractor who is going to do the cleanup work, the remediation.

That is the time, just pure advertising for a new contractor and so forth. There is time that is involved there. You reduce the time of not having to advertise for the contract.

The other way you save money and also save time is if you have one contractor who is doing the site investigation design and turns it over to another contractor, if the contractor who is cleaning up runs into unforeseen problems and so forth, then you have got a site condition change and you have got claims, modifications, and scope change and so forth, and so you end up increasing the cost of the contract, and our experience is, using the TERC contract, that we are reducing those types of problems that are associated with handing off from one contractor to another contractor.

Senator STEVENS. In how many instances is the design contractor the cleanup contractor?

General WILLIAMS. Say that again, sir.

Senator STEVENS. In how many instances is the design contractor the cleanup contractor?

General WILLIAMS. In the TERC contract you may have—the prime will have subcontractors, so he is responsible for the entire project, so he will have as part of his team working for him the designer and the constructor, so they are working together, teaming together, so you do not have a separate contract, so to speak.

MULTIPLE CONTRACTS

Senator STEVENS. I am going to ask you some questions, too, Admiral, but to what extent have you been able to comply with the concepts of advisory boards that we provided last year in terms of these contracts, these TERC contracts?

General WILLIAMS. We support that. We have one that is in operation right now. Wherever there is public interest shown we encourage that, and are working with the local people to encourage the efforts. It is a positive step and it should be followed. We are encouraging that, and are doing that.

Senator STEVENS. I take it that these contracts went into effect sometime in 1993, and are almost ready for renewal.

General WILLIAMS. Well, some of them. The ones that came on board in later 1993 and early 1994 will have 4 years, so 1997, 1998 would be the end of that 4-year option, yes, sir.

Senator STEVENS. I would like to find some way—maybe we will just ask the GAO to look at them. I think that is what we will do. I have got to tell you, I just cannot envision that you are saving the Government money. I can say that you are saving yourself time, Corps of Engineers time, and it is more convenient.

In effect you have contracted out the process of contracting with subcontractors, or with multiple contractors, and I have no problem with contracting out in that sense, but I do have a problem with getting away from the process which will assure local involvement not only in terms of the planning of what is going to be done, but also local involvement in terms of giving job opportunities to the people who are in the area.

I do not think it takes an interstate contract to remove a tank. We do it all the time. We are going to have a whole series of tanks that have to be changed in Alaska. There is probably one in every village that were put in right after World War II. They are all bad now. They are going to be changing, and some of them are just going to be abandoned. They will have to be removed. They were put there by the Army, by the way.

So we are going to have a lot of problems with those under environmental restoration before we are through, but local contractors can do those things. I do not see why we have to have these people fly in from outside to do it. I believe we have got to find some way to make these environmental restoration moneys be a portion of the transition as far as the base closure process is concerned, and I do not think they are under your process.

ALASKA TERC CONTRACT

General WILLIAMS. Sir, if I might just quote some of the figures to date under the TERC contract that is in Alaska to help try to explain what is happening on the local level, as I stated in the request for proposals for this Alaska TERC contract, the request for proposal said that you had to have 70 percent—excuse me, 60 percent of the contracting had to go to subcontractors.

Senator STEVENS. Contractors in the State or outside the State?

General WILLIAMS. Subcontractors. Now, this particular contractor has five subcontractors. They all have permanent offices in Alaska. Three of them are small business. And so the request for proposal said to have 60 percent go to subcontractors.

When we negotiated with the contractor who won, they agreed to 70 percent. Their goal is to hit at least 80 percent. To date, they have subcontracted out 86 percent to subcontracts.

SUBCONTRACTS

The goal in the request for proposal was that 40 percent of the work go to small business and 8 percent to small disadvantaged business. That was the request for proposal. The contractor has exceeded that and said we will do better than 40 percent to small business, we will go to 60 percent, and to date they have already given up actuals, about 88 percent to small business to date.

They have—in the clause that we have for the Alaska TERC contract it says you give preference to hiring local people, and they are doing that, and that is cost effective from the contractor's perspective, and they are also providing a 40-hour training course to certify people in the local area, and once they have completed 40 hours they would be hired.

So from a contractor's perspective, it is much cheaper for them to hire the local people than it is to fly somebody in from out of State to operate a dozer, or whatever they are going to do, so they are using, they will use and are using the local people if the talent and the needs are there.

In the process of the corps deciding which of the people, the contractors that were putting in a proposal, part of the selection criteria was a heavy emphasis on using the local people from the area plus local businesses, and so that was probably the heaviest weighted of the several criteria that was used in determining who the contract was going to be awarded to.

Senator STEVENS. Well, until 1993 those contracts were done in Alaska, and there would be no question about it, or in Hawaii, or in California. It was not until we got this multistate contract concept that we started getting all of these squawks from home. At least I am, and I think other people are, too. In my State alone there are 500 sites that are these former occupied defense sites; 500 of them are going to be done.

The first time we heard about the multistate contract was not with you, really, it was with the contract proposed for Adak, which I requested the Navy not to enter into, and they did it, and now I think we will see the problem of Adak with regard to that type of site or contract, but we did not have to pass laws and say they have to have local employment, did not have to have laws dealing with small disadvantaged businesses until we got all the major, multistate contracts involved in this.

Of the $2.8 billion that you are dealing with annually now, on contracts—I think that is about right, is it not, you are dealing with about $2.8 billion in terms of Superfund and former environmental restoration contracts?

CLEANUP IN ALASKA

General WILLIAMS. Our environmental cleanup I believe is $1.3 billion last year and a little over $1 billion for this year. In the State of Alaska this year we anticipate probably about $13 million for environmental cleanup.

Senator STEVENS. I have $2.8 billion, which must include Superfund money, too, but that is a lot of money. Maybe we should contract it all out. I do not know. Maybe we should say you should not have anything to do with it, and we should put up for bid and have someone, GSA or somebody administer the concept of restoration on these formerly occupied defense sites.

I really do not think that the innovations that have come about since 1993 have increased the efficiency of this process, and I am hopeful we can get to the point where we have some concept of recognizing the right of people who have lived in the area to be part of the process that is to bring the area back to a civilian use. We thought we would do that through BRAC.

Admiral, I am going on far too long. It is time for Senator Inouye, who must have some questions, but in terms of your process, you seem to be involved a little bit more in a sort of indefinite concept, these ID/IQ contracts. We put into the bill last year a request that the services notify State and local authorities if there is to be a release of solicitation for contracts over $1 million. Is that burdensome to you?

Admiral NASH. No, sir; and we have just implemented that and you should be seeing those very, very soon.

CONTRACT REQUIREMENTS

Senator STEVENS. You see, that does not apply to you, General, because those contracts run into 4 years. You are not going to be giving out any notices, right?

General WILLIAMS. New solicitations, yes, sir. All of our new solicitations for contracts, all advertise in the Commercial Business Daily.

Senator STEVENS. But under those 11 contracts that are already outstanding, you do not have to comply with that, do you?

General WILLIAMS. Anything that is over $5 million under order, under that contract, we supply information, yes.

Senator STEVENS. Where did the $5 million come from? The statute said $1 million.

General WILLIAMS. That is a limitation, a threshold the Department of Defense Federal acquisition regulation supplement [DFARS] has imposed upon us.

Senator STEVENS. Why do you not ask somebody to read the law? Would you do that for me?

General WILLIAMS. Yes, sir.

Senator STEVENS. Thank you very much.

Senator Inouye.

Senator INOUYE. If I may, I would like to ask the Admiral a few questions. I note with some satisfaction that the Navy is moving away from large regional contracts and moving closer to local contracts. Do you think that this change will add significantly to the cost of the operations?

Admiral NASH. There seems to be a debate as to which is the most cost effective. My sense is the way you decide what you are going to do is, you decide how much flexibility and how much you have to deal with the unknown, and then you match that with the cost of the contract.

For those things that are very well-defined, a fixed-price contract is just right for us. For those things we are not quite sure what we are getting into, where we have to develop an approach, then we will use more flexible methods. We are in the process of developing the numbers, and I will get back to you with those.

[The information follows:]

Use of smaller, local contracts could add to the cost of remediation efforts because each individual contract generally requires a separate design specification and the separate solicitation process is costly. However, it is not our intent to make an "across the board" decision to use smaller, local contracts in all cases. We fully intend to make the best business decision for individual cleanup actions, using a variety of different contracting methods and cost-control initiatives. The availability of smaller, local contracts is another "tool in our toolbox" to enable us to provide cost-effective, timely remediation.

KAHO'OLAWE CLEANUP

Senator INOUYE. I would like to thank and commend the Navy on the way it has conducted itself and involved itself in the Kaho'olawe cleanup. I believe it is the largest unexploded ordnance type cleanup in operation at this moment.

Admiral NASH. Yes, sir; I believe so.

Senator INOUYE. This is the target island used during World War II, Korea, and Vietnam, by all of the services, and it is just filled with unexploded ordnance. It also is the site of very important sacred sites and archeological sites, and I have been closely following the activities, and I commend you for your patience in dealing with sacred sites and archeological sites. I just hope that we will come out not to expensively.

Do you find that the matter of State taxes enters into contracts? Now, for example, if a big firm in New Mexico gets the contract in Honolulu he pays taxes in New Mexico and not in Hawaii, and the New Mexico taxes are less than Hawaii's.

Admiral NASH. Yes, sir; to be very honest with you, I had not thought about that until we talked just a few days ago. I am looking into that, and we will get back with you. Obviously, if there is anything that keeps them from having a level playing field, then that is not fair.

Senator INOUYE. General Williams, are you taking into consideration that aspect of the contract on State taxes?

General WILLIAMS. Sir, I would echo what Admiral Nash just said. I will look into that and get back to you, sir.

[The information follows:]

IMPACT OF VARIANCE IN STATE TAXES ON AWARD OF CORPS' CONTRACTS

The U.S. Army Corps of Engineers complies with the Federal Acquisition Regulations and both Defense and Army Supplements in all its contract awards. In addition, the U.S. Army Corps of Engineers uses full and open competition and meets the requirements of the Competition in Contracting Act. On sealed bid construction contracts, the Corps chooses the lowest responsible and responsive contractor regardless of which state they are incorporated in. Contracting regulations attempt to secure contracts that are most advantageous to the Federal government and variance in state taxes paid by a prospective contractor are not considered in the selection of a contractor. This may present some advantage to out-of-state contractors if they are subject to lower tax rates. However, in-state firms have other inherent advantages by the nature of their close proximity to the work. In fiscal year 1995, local Hawaiian contractors received 58 percent of the contract dollars and 87 percent of the contract actions.

We have found that, for our large negotiated contracts, there is no particular advantage (or disadvantage) to being an out-of-state contractor. With regard to our Architect-Engineer contract work (i.e., our Comprehensive Long-term Environmental Action Navy (CLEAN) contracts), the selection is made based on technical competency without consideration for price. In the case of our cost reimbursement, Remedial Action Contracts (RAC), prices are "normalized" during the cost evaluation stage and any advantage/disadvantage based on state taxes is eliminated. It is only in our sealed bid contracts that the state tax differential might provide an advantage (or disadvantage) to out-of-state contractors. At the present time, there are no provisions within the Federal Acquisition Regulations that would allow us to eliminate this differential.

NATIVE AMERICAN CONTRACTS

Senator INOUYE. General and Admiral, are you utilizing to the extent possible native Americans? I am certain all of us realize that the highest unemployment is among native Americans, the Indians. I think at the present time it must be about 57 percent in reservations.

I note, for example, in the statistics we have received you speak of small businesses and disadvantaged businesses, but can you give us some report, not at this moment, on how many native Americans are being used for these contracts?

Admiral NASH. Yes, sir, we will.

Senator INOUYE. I would appreciate that.

[The information follows:]

No statistics are kept on the numbers of Native Americans working on these contracts. However, there are requirements and incentives to use local residents and/or firms on all BRAC-related work; and we have seen high percentages of subcontracted work performed by local firms and residents in these cases. An attempt to collect statistics would be costly because many of the contracts are regional (covering numerous states) and we would have to do an analysis on an individual task order basis. On some of the older contracts, there have been as many as two hundred delivery orders. Also, many of the older contracts are now closed out, and it may be difficult to try to get accurate historical data for these. We currently track subcontract awards to small businesses; small disadvantaged businesses; woman-owned businesses; and historically black colleges, universities, and/or minority institutions.

Senator INOUYE. I notice in your report, Admiral, 0.85 percent women-owned small businesses are awarded subcontracts. Can it get to be more than that?

Admiral NASH. Yes, sir; we will try. We have been able to meet our goals over the last few years, and we will continue to try.

Senator INOUYE. If the women see this report they are not going to be too happy.

Admiral NASH. Yes, sir.

Senator INOUYE. I think we should go above 1 percent, at least, don't you think so?

Admiral NASH. Yes, sir, I do.

Senator INOUYE. I have a question on the Pacific Ocean district, but it is a parochial one, so if I may I would like to submit that question to you, General.

General WILLIAMS. Yes, sir.

Senator INOUYE. Because I think it is cost effective to keep it in Hawaii, but you have your own ideas, I think.

Senator STEVENS. There are no inhibitions about parochial questions, are there, Senator?

Senator INOUYE. Oh, we try to be national here. [Laughter.]

Mr. Chairman, I have a few questions I would like to submit, if I may, of a more technical nature.

Senator STEVENS. Yes, sir.

CLEANUP OF SCHOFIELD BARRACKS

Senator INOUYE. In closing, may I thank the corps and the Navy, because although we have our differences we in Hawaii are very pleased with what is happening, and we look forward to the cleanup of Schofield Barracks.

General WILLIAMS. Thank you, sir.

Senator STEVENS. I thank you, too, gentlemen.

General, in the days I have been here, and I was in Washington with the Government before I came to the Senate years ago, we dealt with the Corps of Engineers through the people who represented the corps in our State. I have dealt with a succession of people, including your Colonel Topp who is there now, with regard to problems that come up in Alaska. Our constituents deal with them.

I think they have done a great job for the Government and for your command. They represent you in the State, and yet when we get to these TERC contracts they do not have any discretion. They are told what is going to happen. They are not making the judgments about the State.

Your regional people are involved perhaps to some extent, but if you look at some of the projects, Colonel Topp has got under his jurisdiction right now the largest hospital being constructed to my knowledge in the United States and doing an excellent job, just fantastic job. He awarded those contracts, and his predecessor did. They have been able to handle contracts large and small, is what I am telling you.

I do not see any reason we have to have these TERC contracts that take away the support that the corps gets, the really base support that your commanders, the heads of your regional and State offices have, and build up over a period of time.

I have probably gotten more questions and more problems out of the contracts that have been let outside of the State on any one contract than I have gotten through the whole period about what has been done by the representative of the chief in our State. I think these TERC contracts are a mistake as far as you are concerned, from the point of view of the future support of the Corps of Engineers and its activities throughout our country.

I know that is the case in my State. I know that if Colonel Topp went to a chamber meeting or any one of the meetings of the engineers, architects societies, he can and has defended what he has done and has probably the best support of any officer I have seen for the Corps of Engineers in Alaska, but when we are dealing with contracts that have been entered into and are supervised by people outside of the State, and in order to be involved the contractors have to fly outside to talk to somebody.

I think that it just leads to—and you ought to talk to the labor people if you think that the contractors are mad. The labor people believe they are being left out, too.

I think that we ought to find some way, if you are going to have these multistate contracts, so that they are totally administered by the people who are in that State. Somehow we have to get back to having an interface between the people that represent you in the State and the constituents in that State so that they are not coming to us.

The TERC has brought more people to my door and caused me to have more trips in my State than anything that the military has done since I have been here, and it is just not working in my State. Now, maybe no one else cares, but in my State it is not working, and I would hope you would take a review and reconsider its application to Alaska.

I know what the Navy has done in Adak. It has been a model, really. They have had a meeting up there. The local people are involved. The State legislature has now passed a special act with regard to Adak. Adak has become a totally cooperative concept.

These other 500 sites that you are going to be dealing with are all going to be thorns in our mutual sides if we do not have some way to deal with them in a way that is responsive to local people.

General WILLIAMS. Sir, if I might, I appreciate your comments on Colonel Topp. I obviously have not articulated what Colonel Topp's responsibilities are, and what I would suggest is in a separate meeting I would like to come and talk to you about it, but for this particular setting, Colonel Topp and his people are responsible for administering and supervising the TERC contract and they play a daily role in determining the work orders for the contract.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. I realize that, but they did not make the judgments that went into the process that they are administering.

General WILLIAMS. I see.

Senator STEVENS. Thank you very much, gentlemen.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. ROBERT M. WALKER

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

GENERAL BUDGET ISSUES

Question. By my calculation, environment-related activities in both DOD and DOE total $10.1 billion in the President's 1997 request. ($4.7 for clean up and compliance in the DOD budget; $54 billion for DOE's Environmental Restoration and Waste Management Program). Do you project that the costs for DOD's clean up and compliance activities will increase or decrease in the President's Future Year Defense Plan? Please provide specific figures. How firm are these projections? What is the likelihood that these costs are currently understated?

Answer. Cleanup costs (DERA) will remain approximately stable and compliance costs will decrease slightly in the fiscal year 1997 President's budget (these numbers are from the recent POM submission):

[In millions of dollars]

	1996	1997	1998	1999	2000	2001
Compliance	633	596	603	540	523	501
DERA	418	357	379	388	396	405

The Army is committed to a relatively stable level of funding for restoration. Programmed funding will eliminate the most serious health risks, and will meet negotiated cleanup agreements at National Priorities List (NPL) sites. The current estimated cost to complete all projects is $10.5 billion. The funding program does not support the most efficient scheduling.

Compliance projections are based on current regulatory requirements. However, it is likely that these figures are understated because evolving regulations are placing new requirements on the field. The Army's focus on pollution prevention and conservation initiatives should ultimately help to reduce the costs of meeting these regulations. An example of new regulations are the Munitions Rule and the related Range Rule which would have a significant negative impact on the Army compliance budget; millions of dollars may be needed to upgrade storage facilities and build new demilitarization facilities. In addition, the Army is anticipating action on RCRA Subpart X permits, which could require that compliance dollars be used to clean up Solid Waste Management Units (SWMU's) which are a low priority for funding with cleanup funds. The Army is also investigating the consolidation of open burning/open detonation (OB/OD) permitted sites. Withdrawing applications will require that compliance funds be available for site closure activities. Finally, it appears that the wastewater infrastructure has deteriorated to the point that some installations can no longer meet permit requirements. While it is hoped that privatization will resolve some of these problems, there may be locations where significant expenditures will be necessary. For example, the cost to upgrade the two Aberdeen Proving Ground's treatment plants to meet anticipated requirements of their next NPDES permit is about $20 million.

None of the compliance requirements discussed immediately above are included in the table showing fiscal year 1996–2001 compliance and DERA funding.

Question. How do environmental clean up and compliance laws impact military readiness and costs? Must all military vehicles, ships, and aircraft comply with clean air and related regulations? If so, what is the cost and system performance impact? Please provide specific examples and cost and performance impacts.

Answer. Timing and location of training operations are restricted by noise level control policies and general land management requirements. Environmental clean up and compliance laws and regulations complicate and restrict training, while at the same time conserve the land for safe, realistic training opportunities. It is not clear how this translates into impacts to readiness. Also, while waste disposal and compliance costs diminish limited training funds; this provides incentive for installations to develop more efficient and cost-effective pollution prevention options. In the long term this efficiency will return funds to training.

In the past, tactical ground vehicles have been exempted from some clean air and related regulations that presented problems. However, administrative fleet vehicles are subject to clean air regulations. Since administrative vehicles are commercially available vehicles there is no apparent cost or mission impact. State enforcement of the CAA opacity laws and sections of the regulations dealing with obscurants, haze, and particulates have restricted training at Fort Lewis (dust), Fort Carson (dust and smoke), Fort Ord (smoke), Fort McCoy (smoke), Fort Stewart (smoke), and Fort Irwin (dust).

QUESTIONS SUBMITTED TO HON. RODNEY A. COLEMAN

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

ENVIRONMENTAL CLEANUP AND COMPLIANCE ACTIVITIES

Question. By my calculation, environmental-related activities in both DOD and DOE total $10.1 billion in the President's 1997 request ($4.7 for clean up and compliance in the DOD budget; $5.4 billion for DOE's Environmental Restoration and Waste Management Program). Do you project that the costs for DOD's clean up and compliance activities will increase or decrease in the President's Future Year Defense Plan? Please provide specific figures. How firm are these projections? What is the likelihood that these costs are currently understated?

Answer. According to the fiscal year 1997 President's budget, costs for the Air Force environmental quality program (compliance, pollution prevention, and conservation) for fiscal year 1998–2001 remain fairly constant with inflation, staying within two percent of the fiscal year 1998 figure of $573 million. Costs associated with the compliance pillar follow the same funding profile beginning at $467 million in fiscal year 1998. However, within this total funding level we will emphasize pollution prevention activities as the preferred method to comply with existing environmental laws and regulations.

We expect to continue to refine the Air Force's environmental cleanup requirements in the Future Year Defense Plan. A continued commitment to good funding forecasts is the cornerstone that allows us to build a bridge to the future through partnering with the regulators and public stakeholders to develop an efficient program with a proper balance between study and cleanup. The fiscal year 1997 President's budget figures for cleanup activities are:

Fiscal year:	*Millions*
1997	$414.7
1998	395.9
1999	397.1
2000	421.3
2001	415.3

These estimates are based on bottom-up site level cost estimates. The cost estimates were reviewed and updated for the second time in fiscal year 1996, so there is a high level of confidence in their accuracy. However, overall priorities of the Air Force may require adjustments to the funding in future years. The Air Force is committed to the OSD cleanup goals and will continue to rely on new technology and resulting cost savings to accomplish program requirements within budget constraints. The cleanup and compliance costs are not understated.

ENVIRONMENTAL CLEANUP AND COMPLIANCE LAWS

Question. How do environmental clean up and compliance laws impact military readiness and costs? Must all military vehicles, ships, and aircraft comply with clean air and related regulation? If so, what is the cost and system performance impact? Please provide specific examples and cost and performance impacts.

Answer. Overall, the Air Force environmental costs represent approximately 2 percent of the fiscal year 1996 TOA. These funds represent the cost of responsibly operating installations and weapon systems. In fiscal year 1996 the Air Force will spend $365 million for installation environmental clean up and $498 million for installation environmental compliance. In addition, weapon system program offices develop and implement efforts that complement these installation environmental clean up and compliance efforts. The installation and weapon system efforts directly contribute to the health and safety of Air Force personnel and to the protection of the environment. These efforts also contribute to Air Force readiness because they are essential to the ability of the Air Force to continue to operate in peacetime in order to prepare to perform its wartime missions.

Although environmental regulations do not apply directly to military unique aircraft and space system designs, they do impact the operations and maintenance activities of those systems. This occurs because the installations where the Air Force operates and maintains these individual weapon systems must comply with environmental requirements. The December 1992 DOD IG report on Hazardous Materials and Wastes documented the link between weapon systems and installation compliance and clean up activities and costs. It found that weapon system operations and maintenance processes drive 80 percent of DOD installation compliance and clean up costs. In order to be cost effective, the installation compliance and clean up activities must try to address these weapon system operations and maintenance processes. This results in weapon system program office efforts that support the installation efforts.

For example, the Clean Water Act restrictions on pollutants in storm water runoff have resulted in impacts to military aircraft operations at installations that require the use of aircraft de-icing chemicals. The Offutt AFB (Nebraska), McConnell AFB (Kansas) and Pittsburgh ARS (Pennsylvania) installations have had to fund the building of capture and containment facilities for the aircraft de-icing chemicals. These projects have cost the installations $800,000 at Offutt AFB, $1.5 million at McConnell and $300,000 at Pittsburgh ARS. The aircraft at these installations must now first move to these facilities before the de-icing operations can proceed. In addition, Niagara Fall ARS (New York) has decided to reschedule their military flight operations to avoid flying when the weather conditions would require the use of deicing chemicals.

Individual Air Force weapon system program offices also fund projects (from their program elements) to make changes to their systems that can minimize or eliminate these type of operations and maintenance impacts. Currently, the major weapon system program environmental emphasis is on elimination of requirements to use Class I Ozone Depleting Substances (ODS) in production or modification, operation and maintenance processes. The Clean Air Act banned the continued U.S. production of Class I ODS. Although the Clean Air Act did not ban the continued use of Class I ODS, the continued reliance upon these materials poses readiness and cost risks for Air Force weapon systems. As a result, Air Force weapon system program offices have efforts underway to minimize or eliminate those operation risks.

Air Force weapon system program offices will spend approximately $47 million in fiscal year 1996 to eliminate Class I ODS requirements. Over a period of more than 10 years, these program offices will be spending more than $665 million for these efforts. Overall, the Titan IV program office will spend more than $22 million to eliminate all but one Class I ODS requirement. Because of the very large estimated costs to eliminate the requirement for the Class I ODS solvent trichloroethane in the continued production of the Titan IV Solid Rocket Motors, the Air Force decided to obtain an Essential Use Exemption (EUE) from the United Nations for continued production of that ODS. Other examples of weapon system ODS elimination efforts include the F–117 program office spending approximately $9 million in five separate projects and the C–5 program office spending approximately $70 million on three separate projects to find alternatives to Class I ODS.

Process changes made as part of these efforts to eliminate Class I ODS requirements typically result in more efficient and effective processes. For instance, the weapon system program office for the Mobile Consolidated Command Centers (MCCC) replaced the Halon 1301 fire suppression system for the MCCC diesel generator compartments. In the process of evaluating all the MCCC Class I ODS requirements, the program office determined that they could replace the Halon 1301 fire suppression system with a better design that did not require Halon 1301. The program office replaced the Halon 1301 system with a dry powder system that is more effective against the type of persistent fires encountered with diesel generators. In addition, the dry powder agent only costs $5 per pound as opposed to the current $35 to $75 per pound for Halon 1301. As available Halon 1301 supplies shrink the cost differential will continue to increase. Thus, the Air Force response to the Clean Air Act ban on Class I ODS production resulted in a more effective and efficient fire suppression system for the mission critical MCCC.

CANNON AIR FORCE BASE

Question. At Cannon Air Force Base hazardous materials are currently being processed and stored in six different facilities that I am told do not meet minimum environmental standards for storage. And yet, efforts to address this problem have been frustrated by the absence of an adequate plan by the Air Force to build a new, safe hazardous materials storage facility. Will you look into this situation and inform me whether the Air Force has a plan in the Future Year Defense Plan to address this problem and whether the Air Force considers solving this hazardous materials problem to be essential to the Air Force mission.

Answer. Proper storage, handling, and use of hazardous materials are important to accomplishing the Air Force mission. Because of limited funds, the Air Force must prioritize its funding requirements. This project did not meet the funding thresholds in the Future Years Defense Plan.

HOLLOMAN AIR FORCE BASE

Question. Assistant Secretary Coleman, I understand that the use of the current landfill at Holloman Air Force Base beyond 1996 will violate New Mexico solid waste management regulations. Will you inform me what plans the Air Force has to address this situation? Is there any plan to address this situation in the Administration's Future Year Defense Plan? Does the Air Force consider solving this problem to be "mission essential?"

Answer. The Holloman landfill stopped accepting municipal solid waste in June 1994. Currently, no waste is deposited in the landfill and efforts are underway to close the site. Initial design funding for the closure of the Holloman landfill was distributed in May 1996. The design contract is scheduled for award by August 1996, with completion by March 1997. The construction contract is scheduled for award by July 1997. Yes, complying with this and all federal, state, and local environmental laws and regulations is regarded Air Force mission essential.

QUESTIONS SUBMITTED TO CHERYL A. KANDARAS

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

GENERAL BUDGET ISSUES

Question. By my calculation, environment-related activities in both DOD and DOE total $10.1 billion in the President's 1997 request. ($4.7 for clean up and compliance in the DOD budget; $5.4 billion for DOE's Environmental Restoration and Waste Management Program).

Do you project that the costs for DOD's clean up and compliance activities will increase or decrease in the President's Future Year Defense Plan? Please provide specific figures. How firm are these projections? What is the likelihood that these costs are currently understated?

Answer. Costs for environmental programs can vary from year to year due to emergent requirements such as new laws and regulations, and new requirements based on permit renewals; on delayed implementation of requirements; on implementation of new technologies; on evolving regulatory policy and interpretations; and on other unforeseen factors. Therefore, we review and refine these estimates on an annual basis for development of the subsequent year's President's budget.

We expect overall Department of the Navy environmental costs to slightly increase. Although we have stabilized the funding level for environmental restoration at a stream consistent with achievement of our relative risk management strategy, that stabilized funding stream increases through the future years. Although the Marine Corps expects some increase in compliance funding, overall Department of the Navy funding for compliance, pollution prevention, and conservation should remain about the same in the absence of new requirements. Specific figures, by program, are shown in the President's budget. These figures were our best estimate at the time the fiscal year 1997 budget process was initiated, and were based on field level input.

ENVIRONMENTAL CLEANUP AND COMPLIANCE LAWS

Question. How do environmental clean up and compliance laws impact military readiness and costs?

Answer. Environmental cleanup and compliance laws enhance readiness through the protection of personnel and natural resources. Environmental laws also preserve training areas for future generations of Sailors and Marines. As we downsize our infrastructure, remaining facilities take on a greater importance and must be appropriately maintained to assure their availability for vital present and future training access. Environmental laws such as the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the National Environmental Policy Act (NEPA) promote the judicious use and maintenance of these training areas.

Environmental compliance laws can significantly affect military training and operations, but there is no indication that readiness has yet been adversely affected by these statutes. Environmental compliance is an integral part of operational planning, and in most cases alternatives can be found that allows the training or operation to proceed. However, in a few instances, military operations have had to be terminated due to environmental restrictions. Examples include loss of the Sea Lion Rock inert ordnance target off Washington State, and the prohibition on all bombing activity within the Olympic Coast National Marine Sanctuary.

Recent studies conducted by the U.S. Environmental Protection Agency indicate that the health benefits to society of environmental legislation (i.e., Clean Air Act and Clean Water Act) in terms of reduced health care costs, exceed the costs of implementation of this legislation. The Marine Corps is promoting efforts to make environmental expenditures even more cost effective through the use of innovative approaches and technologies. For example, at Marine Corps Air Station, Beaufort, SC, the use of intrinsic bioremediation at several tank farms is anticipated to reduce the cost of cleanup by approximately $1 million as compared with the use of standard cleanup technologies. This cost-effective groundwater cleanup technology reduces personnel exposure to contaminants and produces no additional waste streams.

CLEAN AIR REGULATIONS

Question. Must all military vehicles, ships, and aircraft comply with clean air and related regulations? If so, what is the cost and system performance impact? Please provide specific examples and cost and performance impacts.

Answer. Application of environmental requirements to military vehicles, ships and aircraft varies depending on the specific statute. Section 118(a) of the Clean Air Act Amendments of 1990 waived sovereign immunity, and as a result the Federal government is required to comply with all Federal, state, interstate, and local air pollution control regulations. The Clean Air Act (CAA) does regulate military equipment; however, through Environmental Protection Agency (EPA) implementing regulations, provisions are normally made for granting military exclusions or exemptions for purposes of national security.

Military Vehicles and Equipment.—Section 118(c) of the CAA requires federally owned vehicles, except for military tactical vehicles, to comply with vehicle inspection and maintenance programs. Military vehicles that are not "uniquely military in nature" are required to comply with CAA and related regulations. Compliance with national/state emission standards, state/local inspection and maintenance programs, and national clean fuel fleet requirements is mandatory for typical on-road, fleet administrative vehicles such as sedans and buses.

Vehicles and equipment that are considered military unique (or military tactical) in nature are generally designed to be operated in a nonroad environment. Section 203(b) of the CAA allows the EPA Administrator to exempt any new motor vehicles or motor vehicle engines from new engines standards for reasons of national security. EPA has through regulation implemented this discretion, and new DOD military tactical vehicles and equipment (to include vehicles or equipment procured for use in combat operations, including combat support, combat service support, or training for such actions) have been granted national security exclusions from EPA's Motor Vehicle and Nonroad Engine Rules. EPA has also implemented an exemption application process for vehicles and equipment that are not uniquely military, but for national security purposes require an exemption from new engine emission standards.

The Marine Corps obtains many types of tactical vehicles and replacement engines through the U.S. Army Tank-Automotive Command (TACOM). The U.S. Environmental Protection Agency renewed an agreement with TACOM recently (16 Feb 1996) on procedures for approval for the military to obtain national security exemptions for tactical vehicles and engines procured by TACOM. The agreement, however, does include provisions enabling us to continue to investigate the feasibility of improving engine emissions and commit to implementing any feasible emission improvements that do not substantially impair tactical vehicle mission objectives.

The Marine Corps' latest weapon system initiative, the Advanced Amphibious Assault Vehicle (AAAV), is being planned and designed to be free of the requirement for Ozone Depleting Substances. The Statement of Work and source selection criteria for the AAAV include requirements for integrating pollution prevention into all aspects of the AAAV Program and investigating alternatives for achieving a design that minimizes environmental impacts.

Some parts of the country, such as several air management districts in California, regulate existing tactical equipment as stationary sources, thereby subjecting them to differing local requirements. The Navy worked closely with the California legislature to include in California's Morrissey Bill provisions which preempts local air pollution control districts from regulating tactical equipment and engines. That bill was enacted into law in late 1995. While the new law will keep various local areas from requiring modifications to deployable equipment, this tactical equipment may still be required to be permitted. Negotiations are ongoing with California to resolve this issue.

Ships.—EPA is currently developing regulations for the control of emissions from both propulsion and auxiliary engines. The current proposal is to include marine diesel engines under the same regulatory framework as the land-based nonroad engine rule. Marine engines used on vessels that exhibit substantial features ordinarily associated with military combat (such as armor and/or permanently affixed weaponry), and which are owned and/or used by agencies responsible for national defense have been granted a National Security Exemption by EPA.

The International Maritime Organization (IMO) is currently acting to establish new international limitations on the emission of nitrogen (NO_x) and sulfur oxides (SO_x) from new marine diesel engines with a power rating of over 100kW installed in vessels over 400 gross tons. The IMO regulations will become Annex VI of MARPOL 73/78, to which the United States is a signatory. Although public service vessels have been granted exemptions from compliance with MARPOL 73/78, countries that are signatories to the treaty are expected to "establish standards for their warships that require such vessels conform as closely as practicable with the international standard, without comprising operational effectiveness."

With regard to other environmental regulations, under the Resource Conservation and Recovery Act (RCRA), bilgewater from Navy vessels is treated as a presumptive hazardous waste in California and New Jersey. In California, bilgewater is the largest Navy hazardous waste stream that is disposed. Permit and disposal fees for bilgewater comprise the largest component of the Navy's hazardous waste disposal costs in San Diego. Both California and Virginia are considering regulation of ships' bilgewater discharges, but have agreed to forestall regulation pending promulgation of Uniform National Discharge Standards (UNDS) regulations. To minimize the impact on ships, shore infrastructure for handling of bilgewater is being installed.

Under the Clean Water Act (CWA) collection, holding and transfer (CHT) discharges may be regulated. CHT systems aboard ships are used for disposing of sewage. Because of the type of piping used frequently the discharges contain high levels of heavy metals. The Publicly Owned Treatment Works (POTW's) which treat the sewage believe the CHT system wastewater has a negative impact on their treatment works. In both San Diego, California and Norfolk, Virginia the POTW's have imposed regulation on ships' discharges. Both POTW's have requested the Navy look at design changes (different piping or epoxy lining of piping) to correct the problem. There is also consideration being given to pretreating all shipboard sewage. Both of these options are costly. A Navy working group is currently working with the POTW's to develop a solution.

Clean Air Act Regulation Of Aircraft.—After consultation with the Federal Aviation Administration (FAA), EPA is authorized under the CAA to regulate aircraft engine emissions. To date, military aircraft have been exempted from regulation. However, EPA has recently indicated in agency comments on the proposed California State Implementation Plan (SIP) for Ozone that they may be reconsidering their decision not to regulate military aircraft emissions.

It should be noted that the Navy is actively seeking to utilize pollution prevention as a means to achieve and maintain compliance with environmental laws and regulations. In addition to reducing or eliminating the environmental cost burden, pollution prevention solutions often improve productivity and result in synergistic cost reductions in areas such as safety and occupational health.

QUESTIONS SUBMITTED TO LT. GEN. ARTHUR E. WILLIAMS

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

U.S. ARMY CORPS OF ENGINEERS DIVISION RESTRUCTURING

Question. General Williams, the proposed reorganization will require the South Pacific Division to oversee six Districts covering the entire Pacific Rim. I am concerned that this proposal will not allow the South Pacific Division to adequately serve the needs of our military commanders. How will you ensure that our military needs are met and that proper oversight of military construction projects in Japan, Korea, and Guam is provided on a day-to-day basis?

Answer. Day to day supervision of military construction projects is conducted by Corps of Engineers districts, not the division headquarters. The Corps has district offices in Japan, Korea, and Honolulu. No districts will be closed under this plan. Consequently, we envision no impact on day-to-day execution of military construction projects. The Pacific districts will continue to execute their military construction program consistent with continued program funding.

Program oversight is a division headquarters responsibility. In addition to program oversight, the Pacific Ocean Division has also supported wartime planning for PACOM. The South Pacific Division plans to meet these broad, regional responsibilities in the Pacific by establishing a small forward element in Hawaii. Planning is now underway to determine the appropriate size and composition of that element.

Question. General Williams, the past two Corps of Engineers reorganization plans concluded that the Alaska District should be placed under the oversight of the Pacific Ocean Division. What caused a change in thinking?

Answer. Moving Alaska under POD, as recommended in previous plans, would allow POD to meet the Public Law 104–46 requirement to have at least four subordinate districts under each division. There are two other considerations, however, that have come about since 1992. Taken together, they led me to the conclusion to not move the Alaska District under POD.

First is a change implemented in the role of division headquarters. Beginning in 1994, the Corps engaged in a multi-faceted restructuring process which, among other things, redefined the roles, missions, and processes employed at each echelon of command within the Corps. Operating functions (like technical design review and direct project management) were removed from divisions and delegated down to district level. For example the Pacific Ocean Division has long shared operational functions and personnel with the Honolulu District. Separating the division functions of command/control, program oversight, regional coordination, and program quality assurance from the day to day operating functions of the Honolulu District (and, in this case, transferring them to SPD) is consistent with this policy.

The second change, and the one having the most impact, is the substantial reduction in funds available for division level military program overhead. Division spaces to support the Corps' military program are funded by Operations and Maintenance, Army (OMA) funds. The overall Army OMA program has been significantly reduced over the past years. The portion of those funds provided the Corps has been likewise reduced. Consequently, the Corps was faced with the challenge of how to allocate the reduced funds it was given among the various OMA accounts it manages. All Corps managed OMA accounts are affected by the reduction. Maintaining the historical level of division headquarters overhead could only come at the expense of direct customer service accounts (such as installation support). Even though they were given funding priority, those customer accounts were still reduced. The division headquarters account took a far more substantial reduction. To distribute resource reductions of the magnitude projected across all divisions with military missions would result in a Corps-wide inability to meet executive direction and management responsibilities. The elimination of a predominately OMA funded division headquarters enabled a more balanced approach.

Taken collectively these changes led to the conclusion to close the POD headquarters and retain the Alaska District under the North Pacific Division.

SUBCOMMITTEE RECESS

Senator STEVENS. If there is nothing further, the subcommittee will stand in recess.

[Whereupon, at 11:50 a.m., Wednesday, May 8, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

TUESDAY, JUNE 4, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:40 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, McConnell, Shelby, and Inouye.

Also present: Senator Bennett.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

CHEMICAL DEMILITARIZATION PROGRAM

STATEMENT OF DR. HAROLD P. SMITH, JR., SPECIAL ASSISTANT TO THE SECRETARY OF DEFENSE FOR NUCLEAR, AND CHEMICAL AND BIOLOGICAL DEFENSE PROGRAMS

ACCOMPANIED BY:

- **DR. TED PROCIV, DEPUTY SECRETARY OF DEFENSE FOR NUCLEAR, AND CHEMICAL AND BIOLOGICAL DEFENSE PROGRAMS**
- **MAJ. GEN. ROBERT ORTON, PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION**

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. My apologies, gentlemen. A little problem came up at the last minute.

We are meeting today to review the Department's program to dispose of chemical agents and munitions. Senator Shelby has urged that we hold this session. We have proceeded in consultation with all members of the committee who have States that are impacted by these facilities.

Our witnesses today include Dr. Harold Smith, Special Assistant Secretary for Chemical and Nuclear Issues, and his Deputy, Dr. Ted Prociv. Is that right?

Dr. PROCIV. "PROE-civ," sir.

Senator STEVENS. "PROE-civ," pardon me.

From the Army, General Robert Orton, the program manager responsible for the implementation of the effort. And representing the National Research Council is Dr. Richard Magee, who is the head of an ongoing study of alternative technologies under the auspices of the National Academy of Sciences.

This program has been underway for nearly 10 years and it is supposed to go on for another 10 years. The total cost of disposing of our aging stocks of unitary chemical munitions and bulk stocks will likely exceed $12 billion. So far the program has a rather spotted history of problems and delays. Communities that live adjacent to these facilities are understandably concerned about safety and risks and schedules for the disposal of munitions and the stocks.

It is our intention to provide funding by this committee in concert with the wishes and views of those members who represent the States involved in the efforts to the maximum extent possible.

I ask Dr. Smith and other witnesses here today to take no more than 20 minutes for their presentation and have Dr. Magee then have 20 minutes for his presentation. And if that is agreeable with the committee members, we will go just that way, no questions until we have the full presentations and then we will have our questions. Is that agreeable with you, Senator?

Senator INOUYE. Of course.

Senator STEVENS. Do you have an opening statement?

OPENING STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. I would just like to commend you for holding this hearing on this important subject. As you know, the Nation's only operational site which destroys chemical munitions is at Johnston Island, right next to the State of Hawaii.

I believe most of us agree that we must destroy these stocks, but I think at the same time just as many will argue that it should not be done in our back yard. There are many in Hawaii, for example, who object to the destruction of munitions at Johnston Island, suggesting that it is not safe. So I am pleased that we will have an opportunity to discuss this matter, and I look forward to hearing the testimony this morning.

Senator STEVENS. Senator Shelby.

STATEMENT OF HON. RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. First of all, Mr. Chairman, I want to thank you for holding this hearing. I think it is a very, very important hearing, important to a lot of people, including the Army and the people who this could affect.

This year the Department of the Army has requested nearly $1 billion to support the overall chemical demilitarization program, and this committee has a direct interest in how that money will be spent.

In February of this year, the Army awarded a contract to begin the construction of a disposal facility at the Anniston Army Depot in Anniston, AL. The Anniston stockpile includes GB and VX nerve agents and mustard agents. These agents are found in approximately 80,000 rockets, 500,000 cartridges and projectiles, 40,000 land mines, and 108 bulk containers. The totality of Anniston's stockpile is about 7 percent of the Nation's chemical weapons.

I am providing this inventory to the committee only to illustrate the scope of the problem facing just one of the communities hosting a storage facility. It is not difficult, I believe, to appreciate the concerns of families surrounding Anniston when we know the actual quantity of weapons stored just minutes from their homes.

As we discuss this program here today, my primary concern remains the safety of the people living around these facilities. We must ensure that the technology that we select is safe and will at long last destroy these weapons once and for all.

In 1988 the Department of Defense established the baseline incineration program to destroy the unitary stockpile. The program was developed through widespread public input, advice from the Nation's top scientific, health, and engineering minds at the National Research Council of the National Academy of Sciences and guidance from the Centers for Disease Control and Prevention and the Environmental Protection Agency. Despite the combined knowledge and conclusions of these organizations, there remains opposition to the baseline technology as the safest means by which to destroy the stockpile.

I believe, Mr. Chairman, we would be remiss as representatives of all the people of our respective States here in the Senate if we did not investigate every reasonable alternative to ensure the safe and swift destruction of these weapons. But I am also interested, Mr. Chairman, in getting on with the disposal process. We cannot wait forever. The longer we delay, the longer we delay, the greater the cost and the greater the risk to the communities we seek to protect.

I appreciate you holding this hearing. I look forward, as I said, to the testimony.

Senator STEVENS. Thank you very much.

Senator Bennett.

STATEMENT OF HON. ROBERT BENNETT

Senator BENNETT. Thank you, Mr. Chairman. I appreciate you holding the hearings and inviting those of us who are not on the subcommittee, but who have a strong interest in this issue, to attend.

Utah, as you know, has more of this material stored than Pine Bluff, Umatilla, Pueblo, Anniston, and Johnston Island combined. We have 42 percent of the Nation's stockpile stored in Utah, and this is an issue, obviously, that has come to the attention not only of the people of Tooele, but of the State as a whole. The Governor has involved himself. The State environmental people have involved themselves.

During the Memorial Day break I went to the facility at Tooele. I toured it, spent the entire morning there, went through all of the processes and I am very impressed with the commitment on the part of the people that have built that facility to the issue of safety. I also spent time with the State officials and talked with them about the licensing procedure that they have gone through to get the necessary permits there.

What struck me, that I had not realized before I had that visit, was that in addition to the safety problems generated by the existence of these chemical weapons, there is a safety problem generated by the deterioration of the explosives in these weapons. The longer we keep them without doing anything about them, the more dangerous they become. The continued debate over this method or that method as the preferred one simply adds to the danger that ultimately will take place.

I was impressed that the facility at Tooele was built in such a way that if there is an unexpected explosion during the process, it will be contained entirely within the room and will not danger the structural integrity of the entire plant or any of the personnel that may be in adjoining rooms.

So I think we are at a point as far as Tooele is concerned where we can move forward. At the same time, I recognize that we must not stop moving ahead on alternative, investigations of alternative facilities—alternative methods, rather, of eliminating this material, because it may be that in other places that are not as far along as we are in Utah alternative methods might make more sense.

I am delighted to be here and look forward to participating in the questioning of the witnesses and in their presentation.

ADDITIONAL SUBMITTED STATEMENTS

Senator STEVENS. Thank you very much.

I have statements from other Senators that I would like to place in the record at this time.

[The statements follow:]

PREPARED STATEMENT OF SENATOR BEN NIGHTHORSE CAMPBELL

Mr. Chairman, I would like to take this time to welcome those from the Army and Dr. Magee from the National Research Council for taking the time to come before this committee to testify on this important issue. Mr. Chairman, let me also take the time to thank you for holding this hearing, something I think is very important.

I would just like to say a few words about chem de mil. I don't want to waste anyone's time here so I will get to the point: I don't agree with the Army's plan for incineration and I personally don't believe that anyone can guarantee that incineration will not contaminate the air.

I believe that the safety of neighbors and workers is more important than quickly disposing of the weapons. I believe that we can stabilize those weapons which are found to be unstable, until we find a better option to incineration. Given this country's history of problems with those affected by the past use of chemical agents, such as Agent Orange, I think that we owe it to people to proceed very carefully here.

My single goal here is to insure the secure storage and eventual safe destruction of the weapons. I'm not out to risk the health of those I represent, and those across the nation, just because it is the path of least resistance or it's the cheapest way to get things done. That is not to say that we shouldn't be budget conscious about how we do this, but we must also consider the human side of the problem.

Again, I appreciate you all being here today and I look forward to your testimony. Thank you, Mr. Chairman.

PREPARED STATEMENT OF SENATOR DAN COATS

I would like to thank the Senate Appropriations Defense Subcommittee for holding this hearing on the United States Chemical Demilitarization Program. I believe the program is vital to ensuring our nation's inventory of lethal chemical agents, munitions and related non-stockpile materiel are destroyed. It is also essential for ensuring emergency response capabilities in order to protect those communities located near chemical storage cites.

I have a strong interest in the Chemical Demilitarization Program as a Senator from the State of Indiana where the Army has stored 1,690 one-ton containers of bulk VX nerve agent at the Newport Army Chemical Activity. I also have an interest in the program as a member of the Senate Armed Services Committee. It is my hope that this hearing will serve as one more step forward in our effort to find a safe and cost effective method of eliminating the nation's chemical weapons stockpile. The challenge before us is to ensure destruction efforts are conducted in a safe, secure, cost-effective and timely manner.

I'd like to take a moment to discuss the Newport Army Chemical Activity. Located in the western part of Indiana, Newport is home to 3.9 percent of the overall U.S. chemical weapons stockpile. The highly lethal agent VX is stored in one-ton containers, in a tightly administered warehouse facility physically guarded 24 hours each day. The facility has earthquake tie-downs, and a built-in cleansing system in the event of a leak. Fire suppression and earthquake induced circuit breakers were installed at my request, as well as that of Senator Lugar, in 1989 and 1990.

Determining a safe and cost effective method for disposal of our nation's chemical weapons stockpile is an issue of concern to the surrounding communities of Newport, just as it is to all communities and citizens located near storage sites for chemical agents and munitions. I was pleased to see that the fiscal year 1997 budget fully funded the Chemical Stockpile Disposal Project in order to meet the congressionally directed completion date. I understand that Research and Development funds will provide for the continued development of alternative technologies and approaches to the incineration of chemical agents for potential use at select chemical agent storage facilities. Regarding alternative technologies specifically, the National Research Council, as required by Congress, will report to the Army later this year on its findings relating to the viability of a number of alternative technologies in meeting the Congressionally required deadline for disposal of the nation's chemical weapons stockpile.

Under current plans, the Department of Defense is moving to dispose of more than 30,000 tons of lethal chemical agents and weapons stockpiled at eight sites in the continental United States and one site on Johnston Atoll island in the Pacific. Incinerators are currently planned at each of the nine locations which were to be destroyed through a reverse assembly process and incineration. To date, two of the nine planned incinerators have been built and only one of the two is operational. The current program is expected to cost $12 billion, although approximately $2 billion has been spent on the program to date, which has destroyed only two percent of the nation's stockpile.

The Army's indicated preference for incineration of chemical agents and munitions as the preferred method has been questioned by local citizen advisory committees established by Congress to review and comment on the Chemical Demilitarization Program. Other concerned organizations have followed this program closely during its development over the last decade. Past reviews and assessments of alternative technology methods by Congress and the General Accounting Office, in addition to ongoing studies by the National Research Council, have provided all interested parties with additional information about possible options for disposal.

I do not advocate any particular technology or disposal method, but I do believe the Army's final decision should be made only after all alternatives have been carefully reviewed and after the public has had ample opportunity to participate and comment on the Army's review process, findings, conclusions and recommendations. In my opinion, the success of the Chemical Demilitarization Program will depend on the cooperative support of the Congress, the Department of Defense and the American people. Both Senator Lugar and I have worked with the local communities in Newport and surrounding areas to ensure public safety by encouraging emergency preparedness programs, emphasizing public involvement, and providing many oversight comments to the Army in an effort to improve storage conditions and safeguards at Newport and other site.

I would like to close by emphasizing once again that we have an obligation to the American people to ensure we are moving forward with the most cost-effective and safest option to dispose of our chemical weapons stockpile. I believe there is much promise in continued efforts to review destruction technologies alternative to incineration, and will continue to encourage these efforts.

PREPARED STATEMENT OF SENATOR WENDELL FORD

Mr. Chairman, thank you for the opportunity to add to the record my concerns over the Army's chemical demilitarization program.

This is an issue that hits home for me. We have a facility in Richmond, Kentucky known as the Lexington Blue Grass Army Depot. This facility houses the most dangerous chemical agents known to mankind such as GB, VX, and mustard agents in various projectiles and rockets. Given the extremely hazardous nature of these agents, my primary concern must be for the health and safety of Kentuckians.

And I'm not alone. Acting out of the same concerns, the state of Kentucky put into place rigorous regulations governing the permit process for operating an incinerator to destroy chemical weapons. To date, the Army has failed to get a permit from the Kentucky State EPA because the Army has failed in its application to meet several basic tests, including providing sufficient evidence that: neither humans nor the environment will be harmed by emissions from the incinerator; burning the chemical weapons would be safer than any possible alternative technologies; should the incinerator malfunction, enough of the nerve gas would be destroyed instead of released; and, during a worst-case scenario accident, there are adequate plans in place for evacuating the public.

In 1981, the Army chose the baseline incineration process as the best and safest method for destroying chemical weapons. Yet today, 15 years later, your committee is holding hearings on whether incineration adequately protects the health and safety of the public and the workers.

I fail to understand how the Army can continue along this path when legitimate questions are still being raised and are still not being adequately answered. We're now finding that many of the alternatives previously reviewed and rejected for the destruction of chemical weapons have been developed to the point where they may not only be considered viable options, but may be better choices than incineration.

Unfortunately, the Army's actions have the appearance of moving forward simply for the sake of sticking to the original plan. I understand the Army's concern over already investing billions of dollars in the incineration process. But we are dealing with the health and safety of our citizens. And when it comes to issues of health and safety, I believe the citizens of Kentucky deserve the best.

To ensure this happens, I am prepared to offer an Amendment during consideration of the fiscal year 1997 Defense Authorization bill. My amendment would require the Army to transfer funds to the Department of Energy to conduct a two-year pilot program in conjunction on the usage of alternatives for the destruction of chemical agents in lieu of incineration. It would also give a change of date to conform with the Chemical Weapons Convention treaty.

Clearly something must be done. With good reason, the state of Kentucky will not issue a permit to the Army. But, it would also be a mistake to simply walk away from the problem. I believe my amendment makes sense for both the Army, the Kentuckians who live in that area, and for other depots that will eventually confront this same problem.

Mr. Chairman I appreciate this opportunity to submit my concerns for the record, and I look forward to working with my colleagues to ensure that the Army moves forward in a way that will not place a single Kentuckian at risk.

PREPARED STATEMENT OF SENATOR RICHARD G. LUGAR

I appreciate the Committee's continued interest in the Army's Chemical Demilitarization Program, and I appreciate also the opportunity to share my views on this subject. I am hopeful the Committee's hearing will be helpful for the Congress and the public in updating the progress of our nation's effort to find a safe and cost effective method of eliminating the nation's chemical weapons stockpile.

As a member of the Senate Foreign Relations Committee, I have urged the Senate to act this year on the Chemical Weapons Convention (CWC). I believe the Senate must dispose of the CWC before the end of the current legislative session of the 104th Congress. The CWC can serve our nation's broader goals for non-proliferation. U.S. leadership is critical if we hope to eliminate the chemical weapons stockpiles located throughout the world.

However, timely consideration by the Senate of the CWC should not be interpreted as unduly hastening the review and decision making process over methods of disposal for chemical agents and munitions stored in the United States. Regardless of Senate action on the CWC, our chemical stockpiles will have to be eliminated as a matter of national policy. However, the CWC will provide broad timeline flexibility and review opportunities for the U.S. and other nations as they move forward with development of a safe and cost effective method of chemical weapons disposal.

In my home state 1,200-ton containers of bulk VX nerve agent are stored at the Newport Army Chemical Activity, Newport, Indiana. This site represents 3.9 percent of the overall U.S. chemical weapons stockpile. Since 1985, I have monitored the Army's Chemical Demilitarization Program closely. I have worked with the local communities in Newport and surrounding areas to ensure public safety by encouraging emergency preparedness programs, emphasizing public involvement, and providing many oversight comments to the Army in an effort to improve storage conditions and safeguards at Newport and other sites.

Determining a safe and cost effective method for disposal of our nation's chemical weapons stockpile is an issue of concern to many communities and citizens located near one of the Army's eight storage sites for chemical agents and munitions. The Army's indicated preference for incineration of chemical agents and munitions as the preferred method has been questioned by local citizen advisory committees established by Congress to review and comment on the Chemical Demilitarization Program. Other concerned organizations have followed this program closely during its development over the last decade. Past reviews and assessments of alternative technology methods by Congress and the General Accounting Office, in addition to ongoing studies by the National Research Council, have provided all interested parties with additional information about possible options for disposal. Regarding alternative technologies specifically, the National Research Council, as required by Congress, will report to the Army later this year on its findings relating to the viability of a number of alternative technologies in meeting the Congressionally required deadline of 2004 for disposal of the nation's chemical weapons stockpile.

Throughout the alternative technology review process, I have worked to shape the Army's review and assessment process so that real alternatives were considered and adequate resources were provided to carry out these evaluations in a thorough manner. I have not advocated any particular technology or disposal method, and believe the Army's final decision should be made only after all alternatives have been carefully reviewed and after the public has had ample opportunity to participate and comment on the Army's review process, findings, conclusions and recommendations.

I am hopeful today's hearings will be helpful in assessing the current progress of our efforts to determine the best and safest method of disposing of chemical agents and munitions. I am interested in knowing what, if any, additional steps are required by Congress to assist in the task of destroying the nation's chemical weapons stockpile.

I appreciate the opportunity to share my views today.

PREPARED STATEMENT

Senator STEVENS. We will proceed with you, Dr. Smith, and your colleague, and then we will go to the panel, and then have another period of time with Dr. Magee.

Dr. SMITH. Mr. Chairman, I appreciate very much the opportunity for me and my colleagues to present to you this program. It is an expensive program, as you correctly cited, $12 billion, and I would like to echo the statements of Senator Shelby and Senator Bennett in noting that safety is the primary consideration.

If I may, sir, I would like to submit my written testimony for the record and confine myself to comments on three areas.

Senator STEVENS. Yes, sir; we will print all of your prepared statements in the record, as you may amend them as you go along.

Dr. SMITH. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF DR. HAROLD P. SMITH, JR.

Mr. Chairman and members of the committee: I am pleased to have an opportunity to appear before you today along with my colleagues to present a current status report on the United States Chemical Demilitarization Program. The objective of this program is to destroy the U.S. inventory of lethal chemical agents and munitions and related (non-stockpile) materiel, and to provide for emergency response capabilities to ensure safety and protection for the local communities with chemical sites. The Chemical Demilitarization Program supports international initiatives to rid the world of chemical weapons, and the Congressionally-mandated destruction date of 2004.

OVERVIEW

Our program is a national program that depends upon the cooperative support of the Congress and the American people. Towards this end, our fiscal year 1997 Budget request contains approximately $800 million in the chemical agents and munitions destruction, defense account. Of this amount, approximately $49 million is for research, development and testing support; $274 million for procurement requirements, and $478 million for operations and maintenance. In addition, we are requesting $132 million in the military construction account.

The fiscal year 1997 budget provides full funding for the Chemical Stockpile Disposal Project (CSDP) to meet the congressionally directed year 2004 completion date. Requested procurement funds will allow equipment acquisition and installation for Anniston, Alabama; Umatilla, Oregon; Pine Bluff, Arkansas; Pueblo, Colorado and Blue Grass, Kentucky facilities, plus design services for Aberdeen and

Newport facilities. Research and Development funds will allow the continued development of alternative technologies and approaches to incineration of chemical agents, for potential use at select chemical agent storage facilities. Operation and maintenance funds will provide for program management; technical support operations at the Johnston Atoll Chemical Disposal System (JACADS), and Tooele Chemical Agent Disposal Facility (TOODF); pre-systemization and training activities in support of Anniston, Umatilla, and Pine Bluff; and munitions reconfiguration operations at Anniston Army Depot, Alabama and Pueblo Chemical Activity, Colorado. Operations and maintenance funds will also support the Chemical Stockpile Emergency Preparedness Program (CSEPP), to acquire personnel protection and communications systems and operate and sustain existing operations centers, systems, and training and/or testing programs. Funds are requested to support the non-stockpile chemical materiel program for management and/or planning and limited implementation activities to support the Chemical Weapons Convention (CWC) mission requirements and the development, testing, and procurement of temporary storage and treatment systems to support on-site destruction of recovered chemical warfare materiel. Treatment systems include the rapid response systems and munitions management devices.

The fiscal year 1997 Military Construction budget provides for construction of disposal facilities at: Umatilla Chemical Activity (2nd increment), Pine Bluff (2nd increment) and the Pueblo Chemical Activity (1st increment).

ACCOMPLISHMENTS

The Chemical Demilitarization program has evolved over several years, and we have benefited from the many lessons learned during the process. The following is a description of some of these activities to date.

The first prototype fully integrated disposal plant, the Johnston Atoll Chemical Disposal System (JACADS) on Johnston Atoll, has demonstrated full scale disposal operations in compliance with safety and environmental requirements for over four years of operational testing under rigorous independent evaluation. The JACADS has successfully destroyed over 1,000 tons of agent. All M55 (nerve agent) rockets, all MC–1 (Air Force) and all MK–94 (Navy) chemical bombs have been destroyed. The destruction of the 155 mm nerve agent artillery projectiles commenced in May 1996. JACADS is scheduled to complete destruction of all chemical weapons stockpiled there by fiscal year 2000. We have learned a great deal from the operation of this pioneering disposal plant that is applicable to enhance environmental compliance, and safety and operational efficiency of other destruction plants in the United States.

Construction of the first disposal facility in the continental United States, the Tooele Chemical Agent Disposal Facility (TOCDF) at Tooele, Utah, was completed July 1993. Agent destruction operations are scheduled to start the third quarter of fiscal year 1996. Recently, Deputy Under Secretary of Defense for Environmental Security, Ms. Sherri Goodman, Assistant Secretary of the Army, Mr. Gil Decker, and my Deputy, Dr. Theodore Prociv, met with the State of Utah's Director of Environmental Quality and the State Science Advisor. We identified outstanding requirements to finish the environmental permitting process, which should allow Tooele to begin operations shortly. In addition, Mr. Decker and Dr. Prociv recently met with Utah County Commissioners, regarding better emergency preparedness support. We resolved outstanding requirements needed to ensure safety to surrounding communities at Tooele.

A contract for construction and operation of the Anniston Chemical Agent Disposal Facility (ANCDF) was recently awarded to the Westinghouse Electric Company, with a "limited notice to proceed provision." This provision allows the contractor to perform the necessary pre-construction activities. Construction activities will not commence until issuance of the necessary environmental permits, which are expected to be approved in the fourth quarter of fiscal year 1996.

RELATIONSHIPS

The responsibility for oversight of this program, in the Department of Defense, resides with me. The Army is the Executive Agent and I have delegated oversight responsibilities to my Deputy Assistant for Chemical and Biological Matters, Dr. Theodore Prociv. The Department of Defense recognizes that the inherent complexity and large size of the Chemical Demilitarization Program requires an intensive management approach. We are collectively committed to insure safety, security, cost effectiveness, and timely completion of the destruction effort. The function of a Program Manager (PM) for chemical demilitarization was established on March 28, 1995. This office is responsible for the following projects: the chemical stockpile disposal project; the chemical stockpile emergency preparedness project; the non-stockpile chemical materiel project; and the alternative technologies and approaches project.

MAJOR DEFENSE ACQUISITION PROGRAM (MDAP)

In recognition of the importance and complexity of the program, the Department designated the chemical demilitarization program as a Major Defense Acquisition Program (MDAP) on December 26, 1994. Management responsibilities reside with the Assistant Secretary of the Army (Research, Development and Acquisition).

As a major defense acquisition program, the chemical demilitarization program is subject to the same management scrutiny reserved for the department's most complex acquisition programs. This allows us to address "head-on" the issue of cost and schedule while maintaining a safe and environmentally sound program. Under the MDAP designation, the Office of the Secretary of Defense provides comprehensive oversight to the program through a Defense Acquisition Board (DAB) process. Typically, the entire program is scrutinized for progress, cost effectiveness, technological improvement and management controls. Our DAB process has also established Integrated Product Teams (IPT's) to address various issues, such as, environmental permitting, expeditious contracting approaches, external affairs, and cost cutting measures.

ACQUISITION PROGRAM COMPONENTS

The project manager for the Chemical Stockpile Disposal Project (CSDP) is responsible for the safe and efficient destruction of the United States' unitary chemical stockpile. He plans, manages, and coordinates all phases of the project. This includes design, construction, equipment acquisition and installation, training, systemization testing, operations, and closure of chemical disposal plants and the training facility. The project manager also ensures that physical security, safety, and environmental requirements are identified; are in compliance with all directives and federal, state and local laws; and are integrated into the entire technical effort.

The Chemical Stockpile Emergency Preparedness Project (CSEPP) is a complementary effort to the chemical stockpile disposal program to enhance protection of the civilian population during the storage and destruction of the United States' chemical weapons stockpile. The Army with the Federal Emergency Management Agency's (FEMA) assistance has the lead in the CSEPP to provide emergency response preparedness to the communities surrounding the eight disposal sites.

The Non-Stockpile Chemical Materiel Project (NSCMP) was established in 1991 to account for all Department of Defense chemical warfare-related destruction materiel. The NSCMP mission includes: identifying the magnitude of the non-stockpile program in terms of locations, types of agents and materiel, and quantities that require treatment; developing and implementing movement and destruction procedures; supporting ratified chemical treaties; and developing and implementing schedule and cost estimates. Non-stockpile chemical materiel includes: Existing recovered chemical warfare materiel and that which may be received from burial sites, binary munitions and related components, miscellaneous chemical warfare materiel stipulated in the Chemical Weapons Convention, and former chemical weapons production facilities.

The Alternate Technologies and Approaches Project is based on the Army's evaluation of the National Research Council Report "Recommendations for the Disposal of Chemical Agents and Munitions." Several technological enhancements and changes are occurring in parallel with the Army's reverse assembly and incineration program (Baseline). In August 1994, the Army initiated an aggressive research and development program on two low-temperature, low-pressure alternative technologies (chemical neutralization as stand-alone and chemical neutralization followed by biodegradation of the neutralized agent). These technologies are being explored for potential use at low-volume, bulk-only sites—Aberdeen Proving Ground, Maryland and Newport Chemical Activity, Indiana. Additional promising alternative technologies suggested by industry are also being explored. Our effort is on track for a Department of Defense decision during the 1st quarter of fiscal year 1997 to determine which alternative technology will proceed to pilot testing.

SUMMARY

In conclusion, I want to emphasize that our goal is to safely destroy the chemical weapons stockpile while providing maximum protection to the public, the workforce, and the environment. In April 1996, DOD submitted the Interim Status Assessment for the Chemical Demilitarization Program as required by Section 252(c)(4) Public Law 104–106. The final report shall be provided with the budget request of the Department of Defense for fiscal year 1998. We are looking forward to completing this review and sharing our assessment with you. Congressional support for our efforts are critical to getting this job done. We are committed to close consultation and cooperation with all the parties affected by the demilitarization process with the expectation of achieving our mutual goals in a safe and timely manner.

Dr. SMITH. I also, Senator, would like to use some of the charts that are to my left as I go through the three points that I want to make.

Senator STEVENS. It would be nice if you could turn those somehow so that the people out there in the audience can also see them and we can see them. I do not know if you can. Can you come up on the area there? A little better.

Senator BENNETT. Mr. Chairman, is the witness' microphone on? I have a feeling it is not.

Dr. SMITH. Is this all right?

Mr. Chairman, I assume with my voice of command as a first lieutenant in the Army you were able to hear my opening comments.

Senator STEVENS. I have always heard male voices, but I cannot hear the female voices, I am sorry to say.

Dr. SMITH. I will not comment, sir.

MANAGEMENT

The first area I want to concentrate on is management. Early in this administration I recognized that chemical demilitarization was big business. It really is a major acquisition. It is not logistics; it is acquisition. It is complex and it is expensive.

Almost immediately, I informed the Army that this program would require the highest level of scrutiny by the Office of the Secretary of Defense. That is, I created this program to be a major defense acquisition program. It goes by the acronym MDAP, and I gave it category 1–D. "D" in this case is for Defense, as opposed to Army, Navy, Air Force. In short, I could not have created a higher category of OSD oversight for the program.

Next, I believe that the art of management is in getting the very best of people to do the work and to make sure there are no impediments to their carrying out that task. I was very fortunate that, after 8 months of recruiting, I was able to get Dr. Prociv, to my right, from industry. He has 20 years of experience in the field, is a proven manager, and a proven entrepreneur and marketer, a man who has creativity and management all rolled into one.

Dr. Prociv reports directly to me, and he is in charge of the OSD oversight.

Next, because I felt the program is truly acquisition in nature, I insisted that the Army assign it to the service acquisition executive in the Army, Gil Decker, whom I have known for many years. Mr. Decker quickly moved to show that he was in charge of the program for the Army; and, indeed, he is.

Next I insisted that the Army provide a major general of proven managerial experience in the field to take command of the program. General Orton, to my left, is the selectee. He has been in office for quite some time, and I think he is doing a superb job.

Those are the steps I took to strengthen the management of the program, Mr. Chairman. Next, if I may, I would like to comment on my personal visit to Johnston Island. I felt that this program is so important that, no matter how far away Johnston Island may be, it was my responsibility to personally visit it, which I did. I would like to call your attention to the first chart.

JOHNSTON ISLAND

It is here that the Army built its first prototype, as Senator Inouye commented. The point to emphasize is that it is truly a remote facility. When one takes on a new industry involving remote disassembly of highly complex munitions that contain lethal agents, the first step in safety is remoteness. Hence, the prototype was built as shown, some 700 miles southwest of Hawaii. It is about as far away as one can get and still be on sovereign U.S. territory. It is truly a desert island and there is nothing, literally nothing, downwind from Johnston Island.

Safety through remoteness, though, had a price. The work force turns over 25 percent every year.

It takes skilled commanders to keep the morale up. It is a highly corrosive atmosphere. I have never seen so many rusted bicycles in my entire life. They last for about 1 year. Nonetheless, working in a remote environment, where even ketchup has to be brought in, and, if it is not brought in, the work force gets very upset—that was the case when I arrived there in April—nonetheless, the Army has made it work.

The last two runs have been ahead of schedule. Bombs and the M55 rockets that we will discuss at considerable length this morning have now been successfully disassembled and the lethal agents combusted, as well as the dunnage, metal parts, et cetera. In other words, this was truly the testing ground by which the Army proved to itself and to me that what we have here is a technology that can do the job, where we relied on remoteness for safety.

Now that we know how to do it, we feel we can confidently move, as Senator Bennett said, to the State of Utah, where 42 percent of the lethal CW munitions reside.

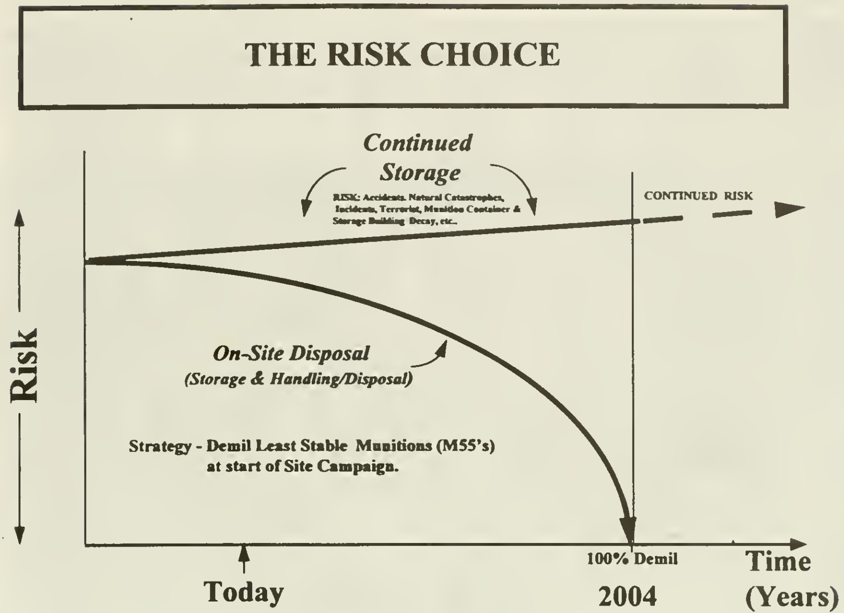
The lessons learned from Johnston Island have been applied to Tooele. Johnston Island was the correct first step.

I went out of my way while there to meet with the professional scientists of the fish and wildlife commission, who, in addition to the Army, are continuously monitoring for any contamination whatsoever. What you see here is a picture taken on North Island, just north of Johnston Island, where there is a marine biological lab and an ornithological lab. You can see the birds, of course. They are literally all over the place.

I can report personally that there is no measurable contamination on North Island or in the surrounding atoll that can be attributed to the combustion of lethal agents or the munitions in which they were carried—no contamination.

Johnston Island has served its purpose. It is serial No. 1. It shows that the combustion technology is safe and effective. It is also nearing the end of its life. And I want to assure you, Senator Inouye, that under no condition will we transport any more munitions to Johnston Island for combustion. The corrosive atmosphere, if nothing else, ensures that its job is one-half done and, given the present course, it will soon be completed.

Finally, if I may, Mr. Chairman, I wanted to comment on risk. The chart to my left shows a rising curve as time proceeds. Chris, would you show the line.



And this is Senator Shelby's point. The biggest risk to the people residing close to these sites is delay. Safe, thoroughly tested elimination, the lower curve, is the answer. That is the best way to protect the citizens of this country and, in particular, your constituents. We should, as Senator Bennett said, get on with the job.

Now, of course, there are alternative technologies and, of course, they should be explored, and, in fact, they are being explored. The emphasis, as Senator Bennett noted, is on the last sites in the Army's plan, for two reasons: First, it takes time to develop an alternative technology. To go from the test tube to the ton is a factor of 1 billion. What works in the test tube does not necessarily work at the ton level. And second, safety is paramount, so that considerable effort must be made, no matter what the alternative technology, to ensure that it is not only effective, but, most of all, that it is safe.

If we can find a technology that is both faster and safer, let me assure you that it will be incorporated into the program at the earliest possible point. But, in the meantime, public safety is best served by that lower curve. We should explore alternative technologies, but we must expedite the one we have.

Thank you very much, Mr. Chairman. I would be pleased to introduce Dr. Prociv.

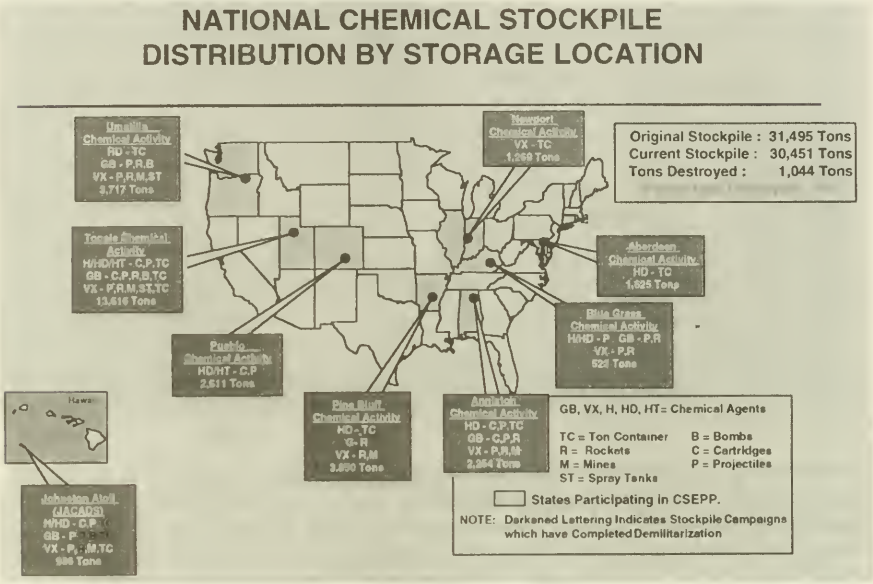
Senator STEVENS. We will hear from Dr. Prociv next, please.

Dr. PROCIV. With your indulgence, Mr. Chairman, I would like to walk around between the charts.

ALTERNATIVE TECHNOLOGIES AND INCINERATION TECHNOLOGIES

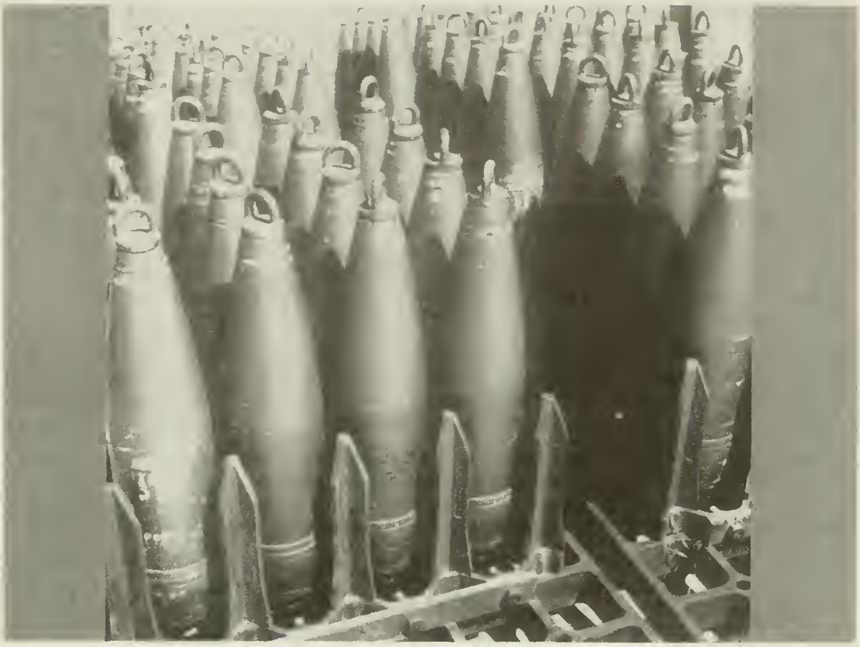
Senator STEVENS. Be our guest.

Dr. PROCIV. In taking off on the theme that was started by Dr. Smith, and that is looking at the reasons for alternative technologies and incineration technologies, I thought I would give you some background of the munitions, so you can understand our position of where we are going, where we are trying to make the kind of risk trades that will make sense, and provide for a safe, effective disposal process.



You have in front of you a chart like this. I will only touch on this chart initially. General Orton will get into more detail on the sites.

The two sites where we are considering alternative technologies are the Aberdeen, MD, and Newport, IN, sites, and that is because at both locations we have stored chemical agents in ton containers, which are large bulk-type containers. The other sites, as you see on the charts, have different type munitions, such as explosively configured munitions, et cetera.



MUNITIONS

The most common type munition is our artillery projectile, which we have here. Now, these are shown without the fuse, which is typical for storage. In fact, these projectiles are in excellent condition. Most projectiles are in a much more deteriorated state.

Let me come over here to this howitzer round on the table, and I can show you some of the details. I apologize to the audience that you cannot see this, but we will be around later if someone wants to take a look at this.

Typically, a howitzer round is configured with a munition body and a canister underneath with propellant in it. One of the first steps we go through is a reconfiguration step which removes the propellant from the canister itself.

Senator SHELBY. How is that done, doctor? You say remove it. How do you do it?

Dr. PROCIV. It is done robotically. We have a robotic system, and there is no man in the loop. I will show you a picture a little bit later. We do that totally automatically.

But understand, in this cavity here is where the chemical agent resides. In addition to the chemical agent, we have a fuse that is screwed in like this. These fuses are fairly deteriorated, fairly corroded, and very difficult to remove. We also have an explosive burster. So not only do we have to dispose of the chemical agent inside, but we also have the burster, the munition body, and the fuse to dispose of.

The reconfiguration part, which removes the propellant, is actually the easiest part of the process.

If you would point to that M55, Chris.

This is our problem child, the M55 rocket. As mentioned by Senator Bennett and others, we have this in a number of locations. This munition now is probably over 40 years old. It was never designed to last that long. It was designed to probably last for about 10 years.

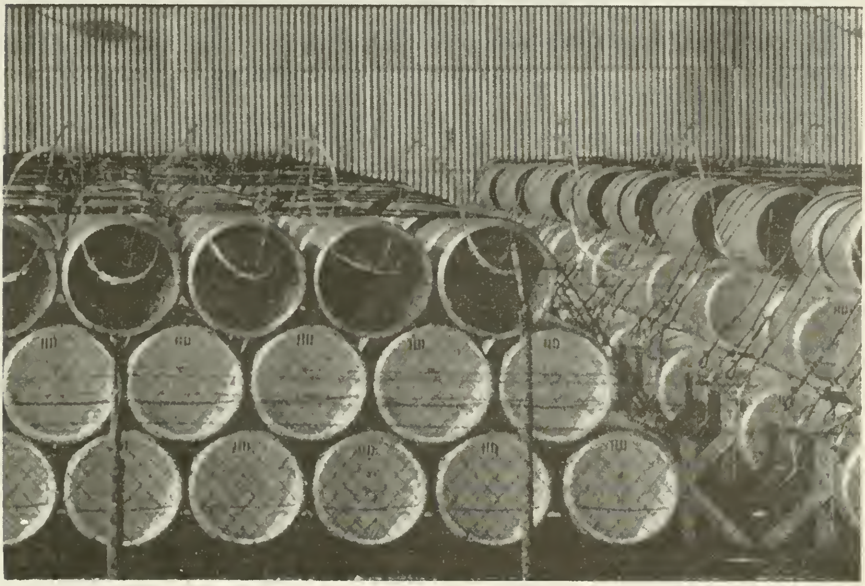
The munition itself comes in a fiberglass firing tube. The munition consists of, again, a fuse, an explosive center, the agent, and the propellant. The M55 has an aluminum casing and a steel casing. We have corrosion at the threads. We have corrosion here.

This munition represents most of our leakers. It is an aluminum body. The agent degrades and forms an acid. We have two types of acid, one of them being hydrochloric. It begins to eat at the aluminum. We get the corrosion and the leakage. And here particularly is where we are concerned. We do not know the condition of that propellant, if the agent has, in fact, moved into it.

So again, if we remove the agent we still have to worry about how do we dispose of the rest of these components. The way we dispose of this rocket, unlike the others, is we actually shear this rocket in a number of places. As we shear it, we drain off the agent. The explosive parts all go into an incineration process. So even if we were to separate the agent through an alternative technology, we still need the incineration process to dispose of these other components of this munition.

Now, in addition to the M55 rocket, we have the M23 landmine. The landmine is also configured with an explosive and generally has VX inside. We do not separate this explosive. It is an extremely difficult process and a relatively dangerous one. We punch this munition, and we drain the agent out. The hardware and the explosives go into an incinerator for disposal.

The agents at Newport and Aberdeen are stored in these ton containers. This is considered safe storage. There is approximately 1 ton of agent in each container, which is simply a heavy-walled steel, high quality stainless steel can. We can punch this, we can drain it, we can clean the metals, and send the metals off for reprocessing. This is by far the simplest of the systems and, with the exception of possibly treating the metal, it does not require anything but a neutralization technique.

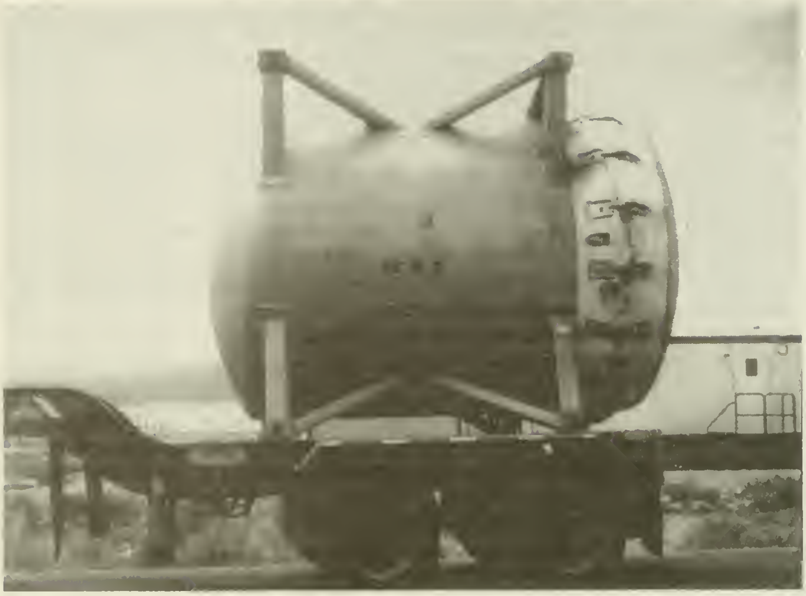


This is the configuration that we have at Aberdeen, the storage of the ton containers. They are stacked one on top of the other. They are in outdoor storage. In Newport the agents are in indoor storage.

As an additional risk mitigation factor, we did a number of risk studies and discovered that, in fact, we were close to a runway at Aberdeen. Probably the worst possible accident would occur if an airplane lost control and crashed into the stacked ton containers. What we did is line the top of this stack with empty ton containers, and this, in fact, created a cushion for us. And when we did the risk studies, we found that this mitigated the risk very, very nicely.

But again, in this case it does not really do anything. It does not destroy the agent. We still have to destroy the agent.

Next, please.



TRANSPORTING MUNITIONS

To give you an idea of the difficulty of moving some of these rockets and munitions, this is called an onsite container [ONC]. We could not think of anything more clever. ONC was about the best we could do. An ONC is a heavy-walled, hermetically sealed container. If, in fact, we were to put a pallet of M55 rockets and if we had one go off track in shipment, the ONC would contain any chemical agents. This has both a vapor barrier and an explosion barrier.

So we are treating these munitions with the utmost respect and the utmost safety, to make sure that we reduce the risk as much as possible.

Senator SHELBY. How large is that container?

Dr. PROCIV. We can put two of these on a flatbed truck and it is about 8 feet, 8 to 9 feet high, about 15 to 18 feet across, in that vicinity—quite a contraption. All of these are bolt-down locks on here. When this thing seals, nothing is going to get out of there.

Next slide.

As Senator Bennett mentioned, this is Tooele. This is our plant, complete and ready to go, waiting for its permit to move out. I give you this picture to show you that here is the module for the LIC, or the liquid incineration, as we call it. This module, if we were to move to an alternative technology, this module would change. But the processing plant, the disassembly plant, the metal parts incineration, the pollution abatement system, all these things have to remain.

I think one of the issues that we keep being confronted with is, if we move to an alternative technology, then we will not have smokestacks, and we will not have factories. This is probably not true. An alternative technology simply replaces the module shown on this chart any time we are dealing with explosively configured munitions. Again, the bulk sites could be different.

Next slide.

And to give you some other assurance of our interest in safety and maximum use of technology to help us, this is the control room at Tooele. It is a fully automated, state-of-the-art control room which is attached to numerous high technology centers throughout the plant. Everything is done from the control room. It is done with state-of-the-art sensors, state-of-the-art robotics.

Any of these operators are able to shut down a system and contain a system, whether it is explosively configured or it is a chemical agent leak. They can shut it down and make it safe almost immediately from this, the heart of the operation.

CHEMICAL AGENT TRAINING FACILITIES

And just to add, we have also built in Maryland a chemical agent training facility. I know it is not an exciting picture. It is just a picture of a building. But within that building we have duplicate equipment, sensor systems, and control rooms of everything that we are putting into the chemical agent facilities.

It is important to note that no person ever goes to work at a chemical disposal facility without extensive training in this building and sometimes even repeat training. They are trained to their specialty, to their specific jobs, and use actual hands-on equipment.

So I wanted to give you kind of an appreciation of what we are going through. Let me say that our process is basically two pieces. It is the disassembly, or reverse disassembly, which we are attempting to do, and then the disposal. The most expensive and the highest risk process is disassembly, which in one case, for the smaller munitions, is a punch and drain, in the second case is a shearing of the rockets.

Once we are through with that, the material then goes to our processing centers, one for the chemical agent, one for the explosive, and one for the metal parts. So again, in looking at where alternative technologies fit, if we were to attempt to place alternative technologies into the explosively configured munitions, it would be only a small part of the actual process itself. So we are concentrating very heavily on the biggest payback, which is the bulk facilities.

I will be available for your questions afterward. Thank you.

Senator STEVENS. Thank you very much.

General Orton.

AUDIT TRAILS

General ORTON. What I would like to do this morning is amplify some of the remarks that have already been said and give you an audit trail of the status of actions at the various sites and some of the major activities that are going on in the program.

I appreciate the opportunity to do that. We think of this as, as Dr. Smith has said, one of our most important programs and one that has great significance for future generations in the sense of ridding them of dealing with this kind of hazard in the future.

STOCKPILE COMPOSITION

Nerve Agents—GB, VX.

Blister Agents—H, HD, HT.

Munition/Containers: Rockets, Projectiles/Cartridges, Mines, Bombs, Spray Tanks, and Ton Containers.

Each Configuration is Different

STOCKPILE COMPOSITION

The first chart you see there is a simple portrayal of the agents that make up our stockpile, nerve agents GB and VX, blister agents of several types—so-called mustard material over the years. And then you see munitions and containers consisting of six major types there.

The point is each configuration and each site is different. They were packaged differently to meet specific readiness requirements at the time they were produced. Now that it is time to destroy them and destroy them safely, they present a challenge to us because we have this wide variety of agent munition configurations at the various sites.

I would also add that the sites are each different geographically, demographically, the size of population, the kind of weather patterns, from the high desert of Utah to the pine forest of Appalachia and Alabama—widely different storage conditions to have to deal with.

The destruction program was put together several years ago to dispose of obsolete and unusable munitions while we still needed to maintain a stockpile, and since then has been expanded to incorporate the total stockpile now that that is no longer a necessary part of national strategy. So it is a large-scale program dealing with a large, complex stockpile.

In arriving at a way to do this, the Army, as Senator Shelby so well pointed out, worked with a number of agencies to come up with a recommended approach, and that approach considered a wide variety of items and technologies, over time. It narrowed to neutralization and incineration as the two primary technologies for consideration. That was done initially in the 1970's.

That then led us to looking carefully at how best to proceed. Experimentation at our demonstration site in Utah, the so-called chemical agent munitions disposal system [CAMDS] facility, resulted in a great deal of research and review by some of the finest minds in the business. That led us to a choice of technology and a choice of methodology in terms of how and where to do the work. That became on site incineration.

It was felt that the lowest risk to the public, the maximum safety, if you will, would be achieved by the incineration technology and by keeping the weapons on the sites where they are, and not moving them, because movement in and of itself entails risk.

In the mid-eighties, we established a formal program and went through a permitting process that was extensive and comprehensive. Public meetings were held across the Nation. Expert advice was brought in from our own people who built the munitions, the academic community, and the commercial community. The agencies of Government which Senator Shelby mentioned earlier were involved in the process. Information was provided to the public. Libraries in every community were made repositories for all the documentation and material that were developed in the process of reaching a decision on how to do this.

The decision made then is the program today: No offsite transport. Onsite incineration is the safest way to do it for maximum protection of the public and to our employees—and I emphasize, we must be concerned with our employees as well—with the environment in which we operate.

Standard equipment was chosen as the design so that at the various sites the equipment needed for that site's particular inventory would have been previously proven out in an agent environment. Therefore, we developed another layer of safety in our process.

To meet all environmental and safety requirements has been our charter from the beginning.

And I would say then that the major emphasis is to destroy the munitions and agents now, destroy them completely, do not leave them for the next generation. The baseline remains the program, as I said. It has been reviewed and supported by independent agencies over time. The National Research Council of the National Academy of Sciences has on several occasions relooked at our process and determined that it is still the best and safest way to do business and that delay in and of itself presents great risks.

I want to now take you through some of the sites.

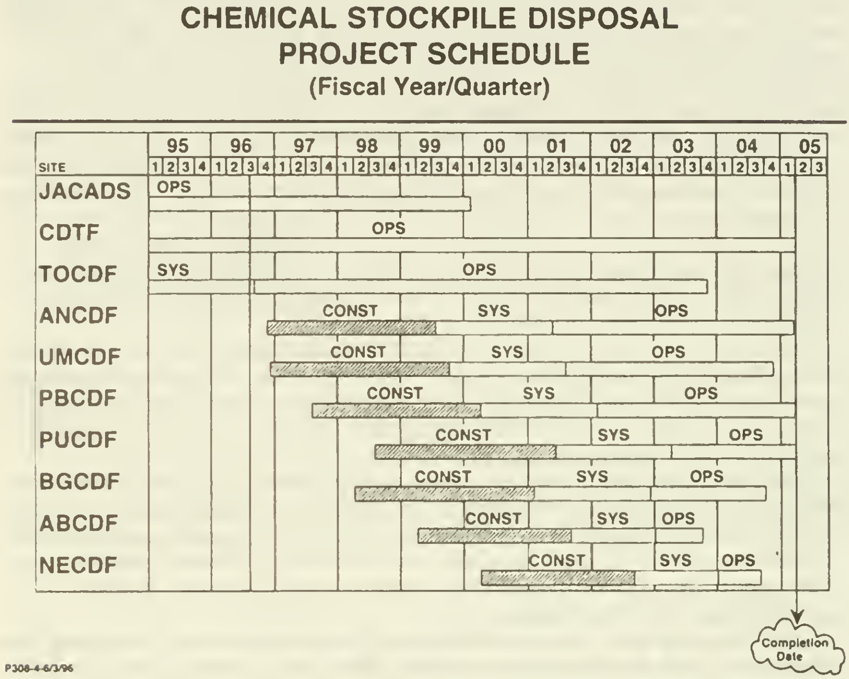
[CLERK'S NOTE.—See chart on page 668.]

NATIONAL CHEMICAL STOCKPILE DISTRIBUTION BY STORAGE LOCATION

General ORTON. You have seen the picture. Here is the map that Dr. Prociv used. And we have in just recent times been able to declassify that information so that all the regulators at State, Federal, and local level, as well as our own people in Government, can work with real numbers and not estimates in terms of their detailed analyses for environmental and safety concerns.

So you see the stockpile as it is arrayed out there and you see a wide variety of items. Sometimes I am asked questions like, if there is more agent tonnage at Pine Bluff, why did we not do it first followed by Anniston? But if you look at the Anniston piece, you see that there are a wider variety of agents and munitions configurations. We would have to make three equipment changeovers in the Pine Bluff plant to accommodate the munitions, and you would have to make nine at Anniston which takes longer. So in the interest of moving forward as rapidly as we can, we would choose the order of march that we did. That is illustrative of what was not known before the stockpile was declassified.

Next chart.



CHEMICAL STOCKPILE DISPOSAL PROJECT SCHEDULE

Overall, the stockpile consists of about 30,000 agent tons. One of the things you will hear during discussions with constituents and others is: Gee, you guys are changing the numbers. You bet. That is our business, is to change the numbers. We are, in fact, destroying munitions at Johnston Island as we sit here today, and as Johnston's inventory comes down that reduces the net number and the percentage changes as well.

We are tasked to complete the job by the year 2004, and again I would emphasize that is a feature of reduced risk or maximum safety. The sooner we eliminate the weapons, the sooner they do not exist, the less the risk to our public, to the employees, and to the environment.

The year 2004 is a tight schedule. There may be complications from environmental concern and other things that may cause us to run close up to the end of the line. But also, other things happen as we go along that make it easier to accomplish. Johnston, for instance, in its last three campaigns has beaten the schedule. They have been able to do the work more rapidly than we had originally planned in our analyses, and that shortens the life of that project.

That year 2004 is linked to risk to the public primarily, and as long as we have a reasonable opportunity to make that date I will continue to pursue that goal. If we, for whatever reason, cannot, we will come back to the Congress and ask to change it. But I do not believe that will be necessary in the future.

Next chart.

JOHNSTON ATOLL CHEMICAL AGENT DISPOSAL SYSTEM (JACADS)

Full-Scale Prototype Facility
Initiated Toxic Agent Operations 1990
—All M55 Rockets (GB and VX), 105 mm Projectiles (HD), MK–94 and MC–1 Bombs (GB), and Ton Containers (GB and HD) Have Been Destroyed
—Has Destroyed Over 2,000,000 Pounds of Agent
—Has Destroyed Over 1,600,000 Pounds of Munition Energetics
—Has Destroyed Over 1,000,000 Pounds of Dunnage
Currently Processing 155 mm GB Projectiles
Operations Scheduled to be Completed Fiscal Year 2000

Over 50 percent of Agent Stockpile Destroyed

JOHNSTON ATOLL CHEMICAL AGENT DISPOSAL SYSTEM [JACADS]

We have talked about Johnston Atoll previously and I just want to give you some figures that pertain to that project. In the last year we have destroyed the balance of M55 rockets at Johnston Island; we have destroyed all of the Air Force and Navy bomb stocks that were stored at Johnston Island, and we are now actively destroying Army and Marine Corps artillery shells stored there.

The island overall in its period of operation has destroyed over 2 million pounds of chemical agent, 1,600,000 pounds of energetics, the explosives that Dr. Prociv talked about, and 1 million pounds of dunnage—filter material, packing material, and that sort of thing. So Johnston Island is performing not only its task to be a prototype and provide us lessons learned to be applied in all the other plants, but also its task of fundamentally destroying stockpile, and is doing that well at the moment.

Next chart.

TOOELE CHEMICAL AGENT DISPOSAL FACILITY (TOCDF)

Completed Facility Construction July 1993
Initiated Systemization August 1993
Surrogate Trial Burns for Agent, Energetics, and Metal Parts Incinerators Completed
Initial Toxic Substance Control Act Burn Completed
Pre-Operational Survey Process Completed
All Emergency Preparedness Issues Have Been Resolved Among the Army, State, and Counties
Finalizing Plans Required to Initiate Agent Shakedown Operations
—Agent Trial Burn/Waste Analysis Plans
—Health Risk Assessment
Target Date to Initiate Agent Shakedown—June 1996

State Supporting—Wants to Get On With It

TOOELE CHEMICAL AGENT DISPOSAL FACILITY [TOCDF]

Here is the Tooele plant again that Dr. Prociv pointed out to you. We have gone through an extensive process we call systemization to shake out the machinery, make sure it all fits together, works together, is reliable. We have worked in partnership with the Utah environmental authorities over a long and extensive period to do trials of various parts of the system using substitutes for real agents, benign materials, testing the filter operations, incineration operations, and so on.

We conduct an operation within the Army called a preoperational survey, in which I bring in experts in machinery operation, in control room operation, in medical support, in all the kinds of things that go into the day-to-day operation of the plant, and we check and recheck, find all the errors, document them, go back and fix them, do another check, and so on.

We have done that iteratively now three times and in the final run here at Tooele we are finalizing the plans now to initiate what we call agent shakedown operations, the actual tests with real agents, real rockets, going through the system, agent in the plant. We are working the final plans for that, and evaluating health risk assessments that would be associated with agent in the plant.

When that is complete, the State of Utah will give us a go-ahead and we will review our own process. And if we are ready at the same time, we will approve the go-ahead. Again, no compromise with safety, no compromise with the well-being of our public that we support.

We would anticipate that initial agent usage at Tooele will occur in this month.

There is—let me go to the next chart.

ANNISTON CHEMICAL AGENT DISPOSAL FACILITY (ANCDF)

Systems Contract Awarded to Westinghouse With Limited Notice to Proceed—February 1996
  —Preparing Detailed Schedules
  —Preparing Construction Drawings
  —Preparing Long-Lead Time Procurement Packages
  —Providing Assistance in Responding to Permit Issues
Public Comment Period on Environmental Permits Scheduled June 12–August 6
Permit Issuance Anticipated 4Q Fiscal Year 1996

Obtaining Value While Waiting for Permit Action

ANNISTON CHEMICAL AGENT DISPOSAL FACILITY

Let us go to the Anniston. At Anniston, the activity Senator Shelby alluded to has continued. We have awarded the Westinghouse Electric Corp. the system operation contract for the Anniston facility. That means that that company will operate as an integrated body to take our design, construct the plant, equip the plant, shake out the equipment within the plant, systematize it, operate the plant, and then close it and eliminate material from the site.

Senator SHELBY. General, where are they today? What is the status?

General ORTON. The status today is that they are on what is called a limited notice to proceed, which allows them to prepare detailed schedules, prepare construction drawings, do the planning for work, how many workers to have what day doing what job on the site as they construct it, long lead time procurement packages, and provide assistance in terms of the permit issues. They will be the operator at the site.

Senator SHELBY. Where are they on the permits?

General ORTON. The permits are being processed by the State. The public comment period on the environmental permit for construction is scheduled to begin the 12th of June. We are imminent to the final stages of issuing that permit. We would expect that that permit will be issued in the fourth quarter of fiscal year 1996.

All these predictions are dependent upon what you find in the process. You are doing this to find things, and if you find things you make the corrections you need to make. But that will take time as well. We do not drive the schedule so hard that we compromise safety or environmental concerns.

UMATILLA CHEMICAL AGENT DISPOSAL FACILITY (UMCDF)

Systems Contract Award Scheduled for 4Q Fiscal Year 1996

Environmental Permits and Health Risk Assessment Have Been Issued for Public Comments—Comment Period Closes June 17, 1996

Anticipate Issuance of Permits 4Q Fiscal Year 1996

Permit Process Remains the Schedule Driver

UMATILLA CHEMICAL AGENT DISPOSAL FACILITY [UMCDF]

Our next plant that we are working with is the Umatilla facility in Oregon, which is in the high desert, Columbia River Valley area. The systems contract is being procured. Bid presentations are being processed now and we anticipate an award in the late summer of 1996. Environmental permits have been released for public comment. That comment period closes June 17, 1996, and we would anticipate that could lead us to issuance of the permit in the fourth quarter of 1996.

The local community is supportive, as it is in the other sites we have mentioned. There is, obviously, some disagreement that you encounter largely over the policy of incineration as a technology. But overall the support in Umatilla has been good.

PINE BLUFF CHEMICAL AGENT DISPOSAL FACILITY (PBCDF)

Systems Contract Award With Limited Notice to Proceed Scheduled for 1Q Fiscal Year 1997

Environmental Permit Applications and Health Risk Assessment Protocol Provided to State

- —New Guidance For Health Risk Assessment Impacting Schedule
- —Additional Time Required by the State to Complete Technical Review of Permit Application

Anticipate Issuance of Permits 3Q Fiscal Year 1997

Continued Support From the State Required to Make Schedule Happen

PINE BLUFF CHEMICAL AGENT DISPOSAL FACILITY [PBCDF]

As to the Pine Bluff facility in Arkansas, we are in the process there of evaluating construction bids as well. We are looking toward a contract award with a limited notice to proceed in the late fall this year. That will kick off the contract in a way similar to the Anniston plant.

The environmental applications, the health risk assessments, those kinds of things that we are routinely conducting for permitting for construction, are underway. We will have had some lost time in the permitting process due to changes in protocols, misunderstanding of protocols, and miscalculations. Those have been mastered and this program is now moving and we may regain some of the lost time at this particular site.

PUEBLO CHEMICAL AGENT DISPOSAL FACILITY (PUCDF)

Request for Proposal On Hold
—Understanding of State-Unique Requirements Resulted in Delay
—Expansion of Health Risk Assessment Requirements Resulted in Significant Increase in Effort
—Full Implementation of "Public Participation" Rule Adds Time to Process
Construction Date Tied to State/County Requirements
—Targeting Issuance of Permits 1Q Fiscal Year 1998
—County Requires Certificate of Designation (CD). Anticipate Issuance 3Q Fiscal Year 1998
—Construction Will Commence Upon Receipt of CD
Anticipate Award of Systems Contract 3Q Fiscal Year 1998

New Requirements Translate Into Program Delay

PUEBLO CHEMICAL AGENT DISPOSAL FACILITY

The Pueblo Chemical Depot activity. There the request for proposal was put on the street. I then put the contract action on hold as we surfaced issues relating to the environmental permitting process that need to be worked out between us and the State. We are proceeding with that with the full cooperation of the State. We have to understand what they need to do and they have to understand what our needs are, and that will be worked and we will reopen the contract process as time goes on.

LOW-VOLUME SITES

Blue Grass Chemical Agent Disposal Facility (BGCDF)
—Environmental Permit Applications Submitted December 1995
—Anticipate Issuance of Permits 1Q Fiscal Year 1998
—Systems Contract Scheduled for Award 2Q Fiscal Year 1998
Aberdeen Chemical Agent Disposal Facility (ABCDF)
—Submit Environmental Permit Applications 1Q Fiscal Year 1997
—Award Systems Contract 2Q Fiscal Year 1999
Newport Chemical Agent Disposal Facility (NECDF)
—Submit Environmental Permit Applications 4Q Fiscal Year 1997
—Award Systems Contract 2Q Fiscal Year 2000

Current Schedule Assumes Continued Use of Incineration

BLUEGRASS, ABERDEEN, NEWPORT CHEMICAL AGENT DISPOSAL FACILITY

Finally, we have three low volume sites: Bluegrass, the Aberdeen facility, the Newport facility. Those sites are coming up on the horizon and we are beginning to work with them in the environmental processes. There is also the alternative technology for the two bulk-only sites that we need to deal with.

Several things that have happened, I will just tick them off very quickly. We have done extensive environmental work through the last years and we are environmentally pioneering in many cases, with new rules centered on the national combustion strategy and other supplementary rules coming out. And we are working with the Federal Environmental Protection Agency [EPA] and the State authorities to implement those rules.

In emergency preparedness, we have made great progress. We have reorganized that program to work even more closely with our partners in the Federal Emergency Management Agency, where we have made a good deal of progress on both the Government side, at the sites, and in the communities in terms of providing emergency operations centers, enhanced communication, planning, enhanced planning processes, and I think most importantly, training exercises that have brought forward the emergency managers to a higher level of proficiency, both for our program and their total program, a higher level than has been possible in many years.

We have a public outreach program that is moving forward rapidly, putting in outreach sites in the downtown areas in three communities already.

And finally, we have a cost situation that is improving. I would like to say there is a slight down-trend in the life cycle costs since we last talked. It is so slight it is very hard to observe, but nonetheless it has happened, and we are continuing to work. We have more cost discipline, as Dr. Smith mentioned earlier on, and the search for cost reductions continues.

ALTERNATIVE TECHNOLOGY PROGRAM BACKGROUND

In 1991, the Army Asked the National Research Council (NRC) to Examine the Status of Alternative Technologies

NRC Performed Assessment of 17 Different Processes (1993 Report), and Provided Recommendations to the Army (1994 Report)

NRC Concluded:

—No Technology Was Sufficiently Developed to Allow for Meaningful Comparison With the Baseline Incineration Technology
—Neutralization-Based Technologies Should Be Pursued for Bulk-Only Sites
—Continue to Monitor Developments in Commercial Sector

Both Programs Were Initiated in August 1994

—Neutralization (Gov't)
—Neutralization Followed by Biodegradation (Gov't)

REACHING OUT TO INDUSTRY

Commerce Business Daily Announcement—August 14, 1995
Alternative Technology Workshop—September 25–27, 1995
23 Industry Responses (Conceptual Design Packages)—October 13, 1995
Three Commercial Alternative Technologies Selected—November 12, 1995
—Electrochemical Oxidation (Silver II) (w/Industry)
—Catalytic Extraction Processing (Molten Metal Technology) (w/Industry)
—High Temperature Gas Phase Reduction (The Eco Logic Process) (w/Industry)

ALTERNATIVE TECHNOLOGIES PROGRAM

Finally, the alternative technologies program continues. We have a structured program in which we went out to industry and said, if you have a good idea bring it to us. We got about 23 such ideas. We scrubbed those through evaluation panel processes, brought it down to three, which we asked the National Research Council to look at and evaluate for us. And that process is going on.

ALTERNATIVE TECHNOLOGY PROGRAM SCHEDULE

Final Agent Data Submission to NRC—May 31
Vendor Business Plan Submission—May 31
PM AT&A Position to Customers—August 20
NRC Report Released—August 29
PMCD Position to ASA(RDA)—September 16
OIPT Decision—October 29

ALTERNATIVE TECHNOLOGIES PROGRAM SCHEDULE

That evaluation cycle will take us through the September, October, November timeframe of this year, and then we will be able to look to decisions on what to do with those alternative technologies.

Senator STEVENS. Thank you very much, General. We are going to have to turn to Dr. Magee now.

Dr. Magee.

STATEMENT OF DR. RICHARD S. MAGEE, SC.D., P.E., DEE, PROFESSOR AND EXECUTIVE DIRECTOR, CENTER FOR ENVIRONMENTAL ENGINEERING AND SCIENCE, NEW JERSEY INSTITUTE OF TECHNOLOGY; CHAIRMAN OF THE COMMITTEE ON REVIEW AND EVALUATION OF THE ARMY CHEMICAL STOCKPILE DISPOSAL PROGRAM; AND CHAIRMAN OF THE PANEL ON REVIEW AND EVALUATION OF ALTERNATIVE CHEMICAL DISPOSAL TECHNOLOGIES, NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMY OF SCIENCES

Dr. MAGEE. Good morning. I would like to thank you for this opportunity to speak with you on behalf of the National Research Council. By way of background, I am Dr. Richard S. Magee, professor of mechanical and chemical engineering and executive director of the Center for Environmental Engineering and Science at the New Jersey Institute of Technology.

Today, however, I am speaking with you in my capacity as both the chairman of the NRC Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program or, as we know it, the Stockpile Committee, and as chairman of the NRC Panel on Review and Evaluation of Alternative Chemical Disposal Technologies, or the AltTec Panel.

Before I begin my remarks, there is one issue that I would like to address. These National Academy of Sciences/National Research Council chemical demilitarization committees and panels are not part of the Department of Defense and the Army or their staffs. In fact, the Stockpile Committee exists, as you may well know, at the request of the Congress.

In the late 1980's, the Department of the Army, as the DOD executive agent for chemical disposal, was directed by Congress to seek independent and objective advice and counsel on its Chemical Stockpile Disposal Program or, as we call it, the CSDP. Consequently, the Army requested that the National Research Council provide the requisite oversight. The NRC, through its Board on Army Science and Technology, established the standing committee, the Stockpile Committee, in 1987. Today the committee has 15 members with approximately 52 years of combined experience on the committee. And I might add that these members contribute hundreds of hours to this program each year.

I think, as you will see from our findings and recommendations, that we are independent, that they have added considerable work to the Army, and in some cases considerable cost to the Army. However, I believe that they have added to the overall effectiveness of this program.

In early 1991 the Stockpile Committee and the Army agreed that the issue of alternative technologies to incineration for the destruction of the chemical stockpile deserved to be revisited. I think that is important. It is important because sometimes you may hear that the Stockpile Committee is an incineration committee. To the contrary, it is a chemical stockpile disposal oversight committee, and it was at the direction and agreement with the Army that we look at alternatives.

Consequently, also under the auspices of the NRC's Army Board, the Committee on Alternative Chemical Demilitarization Technologies was established in early 1992 to address alternatives. The Alternatives Committee report was issued in June 1993 as a primer on alternatives to incineration.

In mid-1995, as I will describe more fully later in this discussion, the Army requested that the NRC once more take up the matter of alternatives, to determine the state of the art of a limited number of technologies, alternatives to the baseline incineration system, for potential use within the Chemical Stockpile Disposal Program at the bulk storage sites of Aberdeen Proving Ground in Maryland and Newport chemical activity in Indiana. That resulted in the creation of the Panel on Review and Evaluation of the Alternative Chemical Disposal Technologies, also under the NRC's Board on Army Science and Technology.

I am providing this background to make it clear that the NRC has been involved extensively and for a long time in assessing numerous aspects of the Army's Chemical Stockpile Disposal Program. However, I would like to again emphasize that the work of the committees and the panel is independent of the Department of Defense.

Today I am empowered to speak on behalf of the NRC only inasmuch as I reflect views, findings, conclusions, and recommendations that have been objectively prepared, independently peer reviewed, and formally reported in writing. As chairman of both the Stockpile Committee and the AltTech Panel, I believe that I can best provide you an understanding of the current NRC position on the CSDP through a short but comprehensive chronological summary of recent NRC report recommendations. I will close my discussion with a perspective on alternatives to incineration.

Since 1989 the Stockpile Committee has worked on 15 reports submitted by the NRC to the Army on the CSDP. I have with me a pile of some of our most recent ones. I am sure you have read every word, so I do not have to go through them in great detail.

I would like to focus my remarks on those produced since 1993. In January of that year, the Stockpile Committee wrote a letter report to the Assistant Secretary of the Army for Installations, Logistics, and Environment recommending specific actions to enhance the CSDP risk management process. The report included recommendations for site-specific risk assessment for facilities in the continental United States. The reason for this was that the original program had had a programmatic risk assessment, looking at the entire stockpile, and the Stockpile Committee felt that it was important that these risk assessments be done on a site-specific basis.

The program manager for chemical demilitarization embarked on this effort by initiating a site-specific quantitative risk assessment, or QRA, for the Tooele chemical agent disposal facility, TOCDAF, at Tooele Army Depot in Utah, where, as you have already heard, approximately 42 to 45 percent of the total chemical stockpile is located.

The risk assessment was an extensive and expensive, but necessary, undertaking by the Army. The Stockpile Committee has followed the effort very closely right up to this present time.

In July 1993, the Stockpile Committee wrote another brief letter report, "Evaluation of the Johnston Atoll Chemical Agent Disposal System Operational Verification Testing, Part 1," in which the committee recommended the initiation of systemization, or what is known as operational testing, of the Tooele facility, the first disposal facility scheduled to come on line in the United States. It recommended use of this systemization activity to implement improvements relating to safety, environmental performance, and plant efficiency.

Following extensive evaluation of the Army's business incineration system between 1990 and 1994, the evaluation of numerous alternative technologies to incineration proposed to the committee from 1992 to 1994, including use of and references to the Alternative Committee's report, "Alternative Technologies for the Destruction of Chemical Agents and Munitions," the Stockpile Committee in February 1994 wrote a comprehensive report, "Recommendations for the Disposal of Chemical Agents and Munitions."

In this report the committee selected as its primary criterion in formulating its recommendations the minimization of the cumulative adverse consequences from all relevant risks over the full duration of the disposal program, otherwise denoted as cumulative total risk. Comparing the storage component and the disposal operations component of the total risk, the committee determined that the risk of continued storage outweighed the risk of any disposal operations.

I would note here that the risks from both storage and disposal have been estimated to be small. That notwithstanding, it became clear that delays in the disposal program would increase cumulative total risk. Consequently, the committee found that the disposal program should proceed expeditiously, at a pace in keeping with reasonable and safe facility construction and operating schedules. This prompted the committee's primary recommendation, for expeditious disposal.

Now let me just stop for a minute. One of the points that comes up is trying to get a handle on this risk issue and how we dealt with it on the NRC committee. When we looked at the data that was done, the studies that had been done, on risk, the storage risk, if I could use my fingers, would be of a magnitude somewhat equivalent to what I am showing you here, whereas the processing risk might be on the order of what I am showing you here.

In other words, when the early programmatic risk studies were done is that the storage risk was at least one order of magnitude—that is 10 times—to two to three orders of magnitude greater than the processing risk. Consequently, the thought process that went on with the NRC committee was the following: If the storage risk is this large and the processing risk is only this large, either cutting the processing risk one-half or eliminating the processing risk in its entirety will never offset any delay in—look at the area under the curve we would talk about up there—the overall storage risk.

It was on that basis, OK, that the Stockpile Committee said we should get on with the program. The committee's finding that total risk will be reduced by prompt disposal, although reasonable, was based upon early analysis that did not reflect current risk assessment methods and knowledge about the storage, handling, and disposal activities. Consequently, the committee recommended that updated analyses of the relative risks of storage, handling, and disposal activities be completed at each site as soon as possible.

Additionally, the Stockpile Committee was confident that site-specific risk analysis would confirm the wisdom of proceeding promptly. It found the schedule of the disposal program should not be delayed pending completion of these analyses, which could be conducted concurrently with other activities within the overall construction and operation schedule.

Both storage risk and processing risk differ from site to site. Storage risks differ greatly depending upon the storage configuration, as you already heard, the types and mix of munitions, potential for external events, as well as nearby community conditions. Thus, the committee further recommended that these new risk analyses be site-specific, using the latest available information and methods of analysis.

The analyses should identify the major contributors to total risk, including storage, and would confirm or refute the belief that maximum safety dictated prompt disposal. The committee also recommended that as new site-specific risk analyses became available, the Army should reconsider the schedule of construction and operation of disposal facilities and, if indicated, reorder the remaining sequence so as to minimize any subsequent cumulative total risk.

Finally, the Army should also consider, as we said, reconfiguring each high-risk stockpile to a safer condition prior to disposal if this would significantly decrease cumulative total risk.

As you have already seen in the case that occurred at Maryland, this was the case for the bulk storage stockpile, where by adding that layer of empty containers on the top the total risk at that site has been significantly decreased.

Also in the recommendations report, the Stockpile Committee found that the baseline incineration system that had been demonstrated at JACADS was a safe and effective disposal process for the chemical stockpile. The committee found that the then-current status of alternative technologies in 1994 ranged from those in commercial use for applications other than agent destruction to those based only on preliminary laboratory experiments. None had reached a level of maturity that they could be considered for integration into the CSDP at that time.

The most promising alternative technologies for agent disposal involve neutralization followed by secondary treatment options. The development of a successful alternative technology for agent destruction may produce some reduction in the risks associated with that portion of the disposal operation. As I said, it might be possible to take the risk of disposal from this level and maybe reduce it with an alternative technology.

However, all other acute and chronic risks from other disposal operations at the six sites storing more than bulk liquid agents and acute and chronic risks from storage at all sites will be unaffected. Furthermore, delays in disposal operations can only increase the already much larger cumulative risk of accidental release from storage, the big number we talked about, they would extend the chronic risks from storage, and they can add to the risks of disposal as agents and munitions continue to deteriorate.

As a result, again, the committee recommended the CSDP continue on schedule with the baseline system until such time as alternatives might be developed and prove safer, less costly, and more rapidly implementable.

The committee also recommended, however, that neutralization be accelerated and expanded and that the Army continue to monitor research developments in alternative technologies.

Finally, the committee recommended that, if alternative research and development efforts were accelerated and results favorable, proven alternatives, if available without increasing risk, should be considered for application on the basis of site-specific assessments.

In April 1994, in the "Evaluation of the Johnston Atoll Chemical Agent Disposal System Operational Verification Testing, Part 2" report, the committee focused extensively on the issues of safety, performance and efficiency, and on changes and improvements that could and should be made prior to initiating destruction of agent and munitions at Tooele. Both the good and the not so good aspects of operations at JACADS were all carefully noted by the schedule, and obviously those on the negative side were noted as areas that should be dealt with during the systemization at Tooele.

Regarding process performance, the committee believed that the baseline system had been adequately tested at JACADS' prototype facility, that the process worked capably and safely, although it did not achieve all its throughput goals.

The committee, by the way, pointed out it was a prototype facility, the startup ramping up was not surprising for such a complex facility, and, as we have already seen, as this facility has come on line its actual processing rate has exceeded the design rate.

Thus, the OVT part II report contained significant recommendations regarding safety, needed testing and improvement activities, effective permitting activities, compliance with environmental regulations, and the management of safety.

The Army's responses to these were numerous and significant. The full committee has visited Tooele four times and many subgroups visited as well to assess the status of the Army's efforts.

In 1995 the Army requested that the NRC review and assess the systemization of Tooele. This was done and resulted in the production of the committee's March 1996 report, which you see here. The report addresses issues raised in previous committee reports that I have just described and states the committee is generally satisfied with the progress made by the Army in preparing Tooele for the start of agent operations.

As I indicated earlier, with its recommendations report in 1994 the Stockpile Committee concluded that the baseline system was adequate for disposal of the stockpile, that the storage risk would persist until disposal was complete, and that the disposal program be carried out expeditiously.

Although already conducting its own alternative technology research program into neutralization and neutralization followed by biodegradation, in mid-1995 the Army concluded that research developments had created an enhanced data base on the performance of other alternative technologies. This new information concerning these alternatives might be sufficient to warrant reexamination of specific alternatives for certain sites.

Consequently, the Assistant Secretary of the Army for Research, Development, and Acquisition informally explored with the NRC Stockpile Committee the examination of other alternative chemical disposal technologies. Both agreed that a new NRC study should be initiated to reexamine the status of a limited number of maturing alternative chemical disposal technologies, including the two neutralization-based processes on which the Army was then conducting research for possible employment in the Chemical Stockpile Disposal Program.

As you have already heard, in August 1995 the Army issued a call for alternative disposal technologies in the Commerce Business Daily to determine if there were any technologies other than the two already being developed by the Army that might be capable within the CSDP schedule of meeting chemical demilitarization requirements for the two sites where agent was stored only in ton containers, Newport and Aberdeen.

Following a preliminary 30-day screening, the Army in November 1995 selected three technologies for review and evaluation by the NRC—gas-phase reduction, molten metal catalytic extraction, and electrochemical oxidation—in addition to the two neutralization processes already under study.

In parallel with the Army selection process, the NRC formed the Panel on Review and Evaluation of Alternative Chemical Disposal Technologies, the AltTech Panel, and I was appointed chairman. From November 1995 to June of this year, the panel has conducted an in-depth review and evaluation of these five selected technologies. To complete its report, the entire panel met six times, panel subcommittees conducted 14 technology site visits, and panel members met with regulators, citizens advisory committees, and local citizens in Maryland and Indiana.

These activities were designed to enable the panel to do the following: establish criteria to assess and evaluate the selected alternative technologies; to assess first-hand the developmental status, engineering robustness and maturity, and operational complexity of the technologies under review; gain an appreciation for alternative technology permitting requirements; solicit views and concerns of citizens advisory commissions and the general public on the five technologies; assess the technical aspects, strengths and weaknesses, advantages and disadvantages of each technology; and finally, make recommendations regarding which, if any, of these technologies merit full evaluation and presentation to the Defense Acquisition Board as candidates for pilot plant demonstrations by the Army.

To sum up, the Stockpile Committee has endorsed the baseline incineration system as the technology to accomplish the overall Chemical Stockpile Disposal Program effectively and expeditiously. However, the committee by its recommendations regarding alternative technologies left open the door for the possible employment of a technology other than incineration at selected sites, depending on comparative factors of safety, performance, and implementation schedule.

PREPARED STATEMENT

The forthcoming report of the AltTech Panel will make recommendations on whether the alternatives have reached a level of engineering maturity and efficiency to be considered for pilot demonstration by the Department of Defense at the Aberdeen and Newport sites. Unfortunately, I cannot discuss the findings and recommendations of the AltTech Panel's report until the NRC has completed its peer review and approved the report for publication. This report is scheduled to be published in late August.

Thank you——

Senator STEVENS. What date?

Dr. MAGEE. Late August.

Thank you. I would be pleased to address any questions.

[The statement follows:]

PREPARED STATEMENT OF DR. RICHARD S. MAGEE

Good morning, I would like to thank you for the opportunity to speak with you on behalf of the National Research Council (NRC). By way of background, I am Dr. Richard S. Magee, Professor of Mechanical and Chemical Engineering and Executive Director of the Center for Environmental Engineering and Science at New Jersey Institute of Technology. Today, however, I am speaking with you in my capacity as the chairman of the NRC Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program, or Stockpile Committee, and as chairman of the NRC Panel on Review and Evaluation of Alternative Chemical Disposal Technologies, or AltTech Panel.

There is one issue that I would first like to clarify. These National Academy of Sciences/National Research Council chemical demilitarization committees and panels are not part of the Department of Defense and the Army, or their staffs. In fact, the Stockpile Committee exists, as you may well know, at the request of the Congress. In the late 1980's, the Department of the Army, as the DOD executive agent for chemical disposal, was directed by Congress to seek independent and objective advice and counsel on its Chemical Stockpile Disposal Program (CSDP). Consequently, the Army requested that the National Research Council provide the requisite oversight. The NRC, through its Board on Army Science and Technology, established the standing Stockpile Committee. That was in 1987. Today, the committee has 15 members, at an average age of 54, with approximately 52 years of combined experience on the committee.

In early 1991, the Stockpile Committee and the Army agreed that the issue of alternative technologies to incineration for the destruction of the chemical stockpile deserved to be revisited. Consequently, also under the auspices of the NRC's Army Boards the Committee on Alternative Chemical Demilitarization Technologies was established in early 1992 to address alternatives. The Alternatives Committee's report was issued in June 1993 as a primer on alternatives to incineration.

In mid-1995, as I will describe more fully later in this discussion, the Army requested that the NRC once more take up the matter of alternatives to determine the state-of-the-art of a limited number of technologies, alternatives to the baseline incineration system, for potential use within the Chemical Stockpile Disposal Program at the bulk storage sites of Aberdeen Proving Ground, Maryland, and Newport Chemical Activity, Indiana. That resulted in the creation of the Panel on Review and Evaluation of Alternative Chemical Disposal Technologies, also under the NRC's Board on Army Science and Technology. I am saying all this to make it clear that the NRC has been involved extensively and for a long time in assessing numerous aspects of the Army's Chemical Stockpile Disposal Program. However, I would like to emphasize that the work of the committees and panel is independent of the Department of Defense.

I am empowered to speak on behalf of the NRC only inasmuch as I reflect views, findings, conclusions, and recommendations that have been objectively prepared, independently peer reviewed, and formally reported in writing. Committees like the standing Stockpile Committee have a continuing mandate that obviously extends for years. The membership of that committee has always been sufficiently broad to provide expertise over a wide range of engineering, scientific, and technical issues. Furthermore, the Stockpile Committee has always rotated and transformed its membership as old issues pass and new issues arise. As has happened, in cases where the workload has become too much, or the expertise too limited, the NRC can and has opted to create additional committees or panels. In every case, these NRC activities have all had a commitment to excellence, the capability to reflect on issues wisely, and the experience to make sound judgments.

As chairman of the Stockpile Committee and the AltTech Panel, I believe I can best provide you an understanding of the current NRC position on the CSDP through a short, but comprehensive chronological summary of recent NRC report recommendations. I will close my discussion with a prospective on alternatives to incineration.

Overall, since 1989 the Stockpile Committee has worked on fifteen reports submitted by the NRC to the Army on the CSDP. I would like to discuss reports produced since 1993. In January of that year, the Stockpile Committee wrote a letter report to the Assistant Secretary of the Army (Installations, Logistics and Environment), recommending specific actions to enhance the CSDP risk management process. The report included recommendations for site-specific risk assessments for facilities in the continental United States. The Program Manager for Chemical Demilitarization embarked on this effort by initiating a site-specific quantitative risk assessment (QRA) for the Tooele Chemical Agent Disposal Facility (TOCDF) at Tooele Army Depot in Utah, where approximately 45 percent of the total chemical stockpile is located. The TOCDF is the first full-scale chemical disposal facility to be built in the continental United States. The risk assessment was an extensive and expensive, but necessary, undertaking by the Army. The Stockpile Committee has followed the effort very closely, right up to this present time.

In July 1993, the Stockpile Committee wrote a brief letter report, "Evaluation of the Johnston Atoll Chemical Agent Disposal System Operational Verification Testing: Part I," in which the committee recommended the initiation of systemization (operational testing) of the TOCDF, the first disposal facility scheduled to come on line in the continental United States, and recommended use of systemization to implement improvements relating to safety, environmental performance, and plant efficiency.

Following extensive evaluation of the Army's baseline incineration system between 1990 and 1994, and the evaluation of numerous alternative technologies to incineration proposed to the committee from 1992 to 1994 (including use of and reference to the Alternatives Committee's report "Alternative Technologies for the Destruction of Chemical Agents and Munitions"), the Stockpile Committee, in February 1994, wrote a comprehensive report, "Recommendations for the Disposal of Chemical Agents and Munitions." In this report, the committee selected as its primary criterion in formulating its recommendations "the minimization of the cumulative adverse consequences from all relevant risks over the full duration of the disposal program," otherwise denoted as cumulative total risk. Comparing the storage component and the disposal operations component of this total risk, the committee determined that the risk of continued storage outweighed the risk of any disposal operations. I would note here that the risks from both storage and disposal have been estimated to be small. That notwithstanding, it became clear that delays in the disposal program would increase cumulative total risk. Consequently, the committee found that the disposal program should proceed expeditiously, at a pace in keeping with reasonable and safe facility construction and operating schedules. This prompted the committee's primary recommendation for expeditious disposal.

The committee's finding that total risk will be reduced by prompt disposal, although reasonable, was based upon earlier analyses that did not reflect current risk assessment methods and knowledge about the storage, handling, and disposal activities. Consequently, the committee recommended that updated analyses of the relative risks of storage, handling, and disposal activities be completed as soon as possible.

Additionally, the Stockpile Committee was confident that site-specific risk analyses would confirm the wisdom of proceeding promptly. It found that the schedule of the disposal program should not be delayed pending completion of updated analyses, which could be conducted concurrently with other activities within the overall construction and operations schedule. Both storage risk and processing risk differ from site to site. Storage risks differ greatly depending on storage configuration, types and mix of munitions, and the potential for external events, as well as nearby community conditions. Thus the committee further recommended that new risk analyses be site specific, using the latest available information and methods of analysis. The analyses should identify the major contributors to total risk including storage, and would confirm or refute the belief that maximum safety dictated prompt disposal. The committee also recommended that, as new, site-specific risk analyses became available, the Army should reconsider the schedule of construction and operation of disposal facilities and, if indicated, reorder the remaining sequence as to minimize any subsequent cumulative total risk. Finally, the Army should also consider reconfiguring each high-risk stockpile to a safer condition prior to disposal if this would significantly decrease cumulative total risk. This was the case for the bulk storage stockpile of ton containers at Aberdeen Proving Ground, Maryland.

Also in the Recommendations report, the Stockpile Committee found that the baseline incineration system had been demonstrated (at the Johnston Atoll Chemical Agent Disposal Facility, or JACADS) as a safe and effective disposal process for the chemical stockpile. The committee found that the then current status of alternative technologies in 1994 ranged from those in commercial use (for applications other than agent destruction), to those based only on preliminary laboratory experiments. None had reached a level of maturity that any could be considered for integration into the CSDP at that time. The most promising alternative technologies for agent disposal involved neutralization followed by secondary treatment options. The development of a successful alternative technology for agent destruction may produce some reduction in the risks associated with that portion of disposal operations. However, all other acute and chronic risks from the other disposal operations at the six sites storing more than bulk liquid agents, and acute and chronic risks from storage at all sites, will be unaffected. Furthermore, delays in disposal operations can only increase the already much larger cumulative risk of accidental release from storage; they will extend the chronic risk from storage; and they can add to the risks of disposal as agents and munitions continue to deteriorate.

As a result, the committee recommended that the CSDP continue on schedule with the baseline system until such time as alternatives might be developed and proven safer, less costly, or more rapidly implementable. The committee also recommended that neutralization research be accelerated and expanded, and that the Army continue to monitor research developments in alternative technologies. Finally, the committee recommended that, if alternative research and development efforts were accelerated and results favorable, "proven alternatives, if available without increasing risk, should be considered for application on the basis of site-specific assessments."

In an April 1994 report, "Evaluation of the Johnston Atoll Chemical Agent Disposal System Operational Verification Testing: Part II," the committee focused extensively on the issues of safety, performance, and efficiency, and on the changes and improvements that could and should be made prior to initiating destruction of agent and munitions at the TOCDF.

On safety, the committee noted some areas at JACADS where there were opportunities for improved safety performance. The committee believed that these could be investigated and evaluated during systemization at the TOCDF. As for environmental performance, there was never a detected emission of agent during normal operations at JACADS. However, there were several incidents of agent emission during shutdowns. Nonagent emissions were maintained within RCRA-permitted limits. Compliance testing on the pollution abatement system of the brine reduction area and the dunnage furnace was not performed during operational verification testing (OVT) at JACADS and there were some problems in hazardous waste management at that facility. Both the good and the not-so-good aspects of operations at JACADS were all carefully noted by the Stockpile Committee and, obviously, those on the negative side were noted as areas that should be dealt with during the systemization at the TOCDF. Regarding process performance, the committee believed that the baseline system had been adequately tested at the JACADS prototype facility, and that the process worked capably and safely, although it did not achieve all throughput goals. The throughput shortfall was not perceived by the committee as seriously impacting program life cycle costs or the disposal schedule.

The "OVT: Part II" report thus contained significant recommendations regarding safety; needed testing and improvement activities; effective permitting activities; compliance with environmental regulations; and the management of safety. The Army's responses to these were numerous and significant. The full committee has visited the TOCDF four times, and many subgroups visited as well to assess the status of the Army's efforts.

Also in April 1994, the report, Review "Review of Monitoring Activities within the Army Chemical Stockpile Disposal Program," was issued. This report basically found that "the monitoring system currently in use at JACADS should be improved prior to employment at sites in the continental United States." The report made 15 recommendations to the Army, five general and ten specific. The specific recommendations addressed six issues involving plant-wide agent monitoring, and exhaust stack agent and agent destruction by-product monitoring, and four issues affecting the operation of the analytical laboratories supporting both agent and nonagent monitoring activities. The Army's response to the recommendations in the Monitoring report was extensive and comprehensive. This work has also been closely followed by the committee for more than four years.

In 1995, the Army requested that the NRC review and assess the systemization of the TOCDF. This was done, and resulted in the production of the committee's March 1996 report, "Review of Systemization of the Tooele Chemical Agent Disposal Facility." The report addresses issues raised in the five previous committee reports that I have just described, and states that the committee is generally satisfied with the progress made by the Army in preparing the TOCDF for the start of agent operations.

As I indicated earlier, with its Recommendations report in 1994, the Stockpile Committee concluded that the baseline system was adequate for disposal of the stockpile, that the storage risk would persist until disposal was complete, and that the disposal program be carried out expeditiously. Though already conducting its own alternative technology research program into neutralization and neutralization followed by biodegradation, in mid-1995 the Army concluded that research developments had created an enhanced data base on the performance of other alternative technologies. This new information concerning these alternatives might be sufficient to warrant reexamination of specific alternatives for certain sites. Consequently, the Assistant Secretary of the Army for Research, Development and Acquisition informally explored with the NRC Stockpile Committee the examination of other alternative chemical disposal technologies. Both agreed that a new NRC study should be initiated to reexamine the status of a limited number of maturing alternative chemical disposal technologies (including the two neutralization-based processes on which the Amy was then conducting research) for possible employment in the Chemical Stockpile Disposal Program.

In August 1995, the Army issued a call for alternative disposal technologies in the Commerce Business Daily (CBD) to determine if there were any technologies, other than the two already being evaluated by the Army in its Alternative Technology Program, that might be capable, within the CSDP schedule, of meeting chemical demilitarization requirements for the two sites where agent was stored only in ton containers (Aberdeen and Newport). The CBD announcement requested information from industry on any technology that was sufficiently developed to meet the needs of the CSDP. Following a preliminary 30-day screening, the Army in November 1995 selected three technologies for review and evaluation by the NRC—gas phase reduction, molten metal catalytic extraction, and electrochemical oxidation—in addition to the two neutralization processes already under study.

In parallel with the Army selection process, the NRC formed the Panel on Review and Evaluation of Alternative Chemical Disposal Technologies (AltTech Panel), and I was appointed chairman. From November 1995 to June of this year, the panel conducted an in-depth review and evaluation of the five selected technologies. To complete its report, the entire panel met 6 times; panel subcommittees conducted 14 technology site visits; and panel members met with regulators, Citizen Advisory Commissions, and local citizens in Maryland and Indiana. These activities were designed to enable the panel to: establish criteria to assess and evaluate the selected alternative technologies; assess first-hand the developmental status, engineering robustness and maturity, and operational complexity of the technologies under review; gain an appreciation for alternative-technology permitting requirements; solicit views and concerns of the Citizen Advisory Commissions and the general public on the five technologies; assess technical aspects, strengths and weaknesses, and advantages and disadvantages of each technology; and make recommendations regarding which, if any, of these technologies merit full evaluation and presentation to the Defense Acquisition Board as candidates for pilot-plant demonstrations by the Army.

Public Law 102–484 identified safety as a critical factor in the selection of any technology for the Army's Alternative Technology Program. The Army's decision will be based, in part, on a comparison of the process safety risk for the baseline system and each alternative technology. Consequently, the Army requested preliminary risk assessments of the proposed alternative technologies by an independent contractor (MITRE Corporation).

To sum up, the Stockpile Committee has endorsed the baseline incineration system as a technology to accomplish the overall Chemical Stockpile Disposal Program effectively and expeditiously. However, the committee, by its recommendations regarding alternative technologies, left open the door for the possible employment of a technology other than incineration at selected sites depending on comparative factors of safety, performance, and implementation schedule. The forthcoming report of the AltTech Panel will make recommendations on whether the alternatives have reached a level of engineering maturity and efficiency to be considered for pilot demonstration by the Department of Defense at the Aberdeen and Newport sites. I cannot discuss the findings and recommendations of the AltTech Panel's report until the NRC has completed its peer review and approved the report for publication. The report is scheduled to be published in late August.

Thank you. I would be pleased to address any questions.

Senator STEVENS. When will you be able to discuss it?

Dr. MAGEE. Late August. Senator, we cannot discuss the findings and recommendations until the entire report review process has been completed. The NRC has a very extensive peer review requirement on all its reports. Not only must the report be approved inside the academy before it goes out for peer review, but once it goes out to peer review, which is typically 10 or so independent experts who have had no relationship to the committee at all, then the panel must address every issue that has been raised during the peer review process.

For the systemization report, which has just been published, I believe we received 170 peer review comments. Each of those comments had to be addressed individually within the text, and then those responses had to go before the academy's report review committee to ensure that, in fact, our responses had adequately been responsive to the issues that had been raised.

Typically, out of 170, I am going to guess 20 of those comments came back to the panel, the committee, saying we do not think you have been fully responsive to the concerns of the reviewer.

So the review process is extremely extensive, and during it the report and the nature of its recommendations can change, can be modified, and, therefore, it would be inappropriate and premature for me to, at this point, to share those with you until that process has been complete.

Senator STEVENS. Well, when will we know whether any of those processes will have the capability to destroy these chemical munitions?

Dr. MAGEE. You will know what the academy's recommendation is at the end of August. I will tell you, however, Senator, that each of these technology proponent companies were required to submit agent destruction data to the panel by June 1. So available would be data on whether or not the technology being considered can destroy agent.

I would tell you that destroying agent can be done many ways. The real question becomes what does it destroy the agent to and how do you then manage the overall rest of the process. So if you want to know whether they can destroy agent, any of those five technologies could provide you the agent surety test data that they have already submitted to Colonel Landry, who manages the alternative program.

But I would caution you that there are issues that go beyond whether or not a technology can simply destroy agent.

ALTERNATIVE TECHNOLOGIES

Senator STEVENS. In 1991 I am informed that the National Academy was asked to review all potential alternative technologies that could be used to destroy the chemical stockpile. The report stated in part that there were no mature technologies available at that time that the NRC could recommend to destroy the chemical agents loaded in the weapons.

Has anything occurred since that time to change that conclusion?

Dr. MAGEE. I think, in all fairness, obviously at that point the academy committee recommended that the Army pursue an accelerated and aggressive program of neutralization research, and I think the Army is in a position to share with you the status of that. At the same time, there has been significant development, I believe, in the private sector to bring technologies much further along than they were when that early report was submitted.

Consequently, I think the decision by the Army to look at alternative technologies, made 1 year ago, was a prudent decision. I will also tell you, however, Senator, that, whereas each of the technology proponent companies was asked to submit a design, a package, in October when that first deselect, that down-select, occurred, that those designs have continually changed as the NRC AltTech Panel has met with the vendors and have challenged them on various aspects of their designs, to the point that we were almost getting changes weekly, and the AltTech Panel used as a cutoff date April 4, 1996, saying that you have to freeze your design, tell us what you are proposing for us to evaluate, as of that date.

So this is not a static situation, Senator. This is an evolving, dynamic situation. And I would suggest that even after we write our report and if the Army decides to go ahead with piloting one or more of these technologies if we so recommend, that there will be continual evolution that will take place in those designs.

CRYOFRACTURE TECHNOLOGY

Senator STEVENS. General Orton, in the late eighties we added funds to test the cryofracture technology with regard to this program. I do not recall seeing a report. Should I be asking you, Dr. Smith, or General Orton? I do not recall seeing a report based upon that funding. Was there ever one prepared?

Dr. MAGEE. I might add that there was a special panel that was put together for the National Research Council to look at cryofracture. It did submit a report based on the evaluation of those tests. I was not on that panel, however.

Dr. SMITH. Mr. Chairman, that was before any of us currently in front of you were involved. We can address questions on cryofracture, though.

Senator STEVENS. Is it still one of the technologies being examined or was it ruled out?

Dr. SMITH. I would defer to my colleagues to answer that question. Dr. Prociv.

Dr. PROCIV. Here, let me take that. We extensively tested the cryofracture process. We did actual agent tests at Dugway Proving Ground, UT, and we found it not to be applicable to our process. It was too risky. We had some process upsets during the trials. Cryofracture never destroyed the agent. Cryofracture was simply a way to get at the agent. It did not do the complete job for us.

There is a test report available. Whether there is a report that discloses that, I do not know.

[The information follows:]

LETTER FROM TOGO D. WEST, JR.

SECRETARY OF THE ARMY,
Washington, March 4, 1994.

Honorable SAM NUNN,
Chairman, Committee on Armed Services, United States Senate, Washington, D.C. 20510.

DEAR MR. CHAIRMAN: The Army, as the Department of Defense (DOD) Executive Agent for the destruction of chemical warfare materiel, has designated that the preferred alternative for the Pueblo Depot Activity (PUDA) Chemical Disposal Facility, Pueblo, Colorado, is the baseline process (reverse assembly/incineration). The PUDA stores approximately 10 percent of the total U.S. chemical weapons stockpile.

The baseline process will be designated as the preferred alternative for the development of the Environmental Impact Statement (EIS), slated to be initiated in the spring of 1994. The EIS will consider both the baseline process and the cryofracture process as alternatives for the destruction of the chemical weapons stockpile at Pueblo.

Congressional language in the House of Representatives Conference Report 102–1015, dated October 5, 1992, stated that "if the Army elects to proceed without including a cryofracture facility in its program, the Army is to submit to the committees a detailed justification and rationale for that decision at least 30 days before obligating any further funding for a baseline facility at a site which has been considered for a cryofracture plant." The attached report is submitted in compliance with the requirements contained in the Congressional language.

Sincerely,

TOGO D. WEST, JR.

Copy Furnished: Senator Thurmond, Senator Exon, and Senator Lott.

Identical letter sent to: Honorable Robert C. Byrd, Chairman, Committee on Appropriations, United States Senate, Washington, D.C. 20510.

Copy furnished: Senator Hatfield, Senator Inouye, and Senator Stevens.

Identical letter sent to: Honorable Ronald V. Dellums, Chairman, Committee on Armed Services, House of Representatives, Washington, D.C. 20515.

Copy Furnished: Congressman Spence.

Identical letter sent to: Honorable William H. Natcher, Chairman, Committee on Appropriations, House of Representatives, Washington, D.C. 20515.

Copy Furnished: Congressman McDade.

Identical letter sent to:

Honorable John P. Murtha, Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives, Washington, D.C. 20515.

Honorable Hank Brown, United States Senate, Washington, D.C. 20510.

Honorable Ben Nighthorse Campbell, United States Senate, Washington, D.C. 20510.

Honorable Scott McInnis, House of Representatives, Washington, D.C. 20515.

TECHNOLOGY EVALUATION BASELINE VERSUS CRYOFRACTURE—MARCH 1994

EXECUTIVE SUMMARY

This report is submitted to Congress in compliance with the requirements contained in House of Representatives Report 102–1015, dated 5 October 1992. It represents the Department of Defense (DOD) position regarding the disposal technology to be implemented in the facility planned for construction at Pueblo, Colorado.

The United States Army has been pursuing two technologies, the baseline technology and the cryofracture technology, both based on the incineration process for destruction of toxic chemical agent and contaminated parts, but each using different processes to access the toxic agent fill and explosives found in the chemical munitions.

Pueblo, Colorado, site of the Pueblo Army Depot Activity (PUDA), where approximately 9.9 percent (by percent of agent tonnage) of the total United States chemical stockpile is stored, was the site selected as the best candidate for construction of a cryofracture facility. The stockpile at PUDA is composed of cartridges filled with Mustard agent (HD and HT), and projectiles containing HD.

A decision on technology for the PUDA demilitarization facility would not be made until a comparison between the two technologies was completed. The evaluation between baseline and cryofracture was done in July 1993 by an independent agency, The MITRE Corporation. The technology processes were compared with respect to their technical performance, schedule, safety, environmental compliance, and cost risks.

The Department of Defense (DOD) position is to pursue a baseline plant at PUDA based primarily on the following:

—The relative immaturity of the cryofracture process.

—Concerns supported by findings of the National Research Council (NRC) relative to the safety of incineration of the mixed streams generated by the cryofracture process.

—The potential for program cost increases (up to $241 million) represented by the cryofracture process as evaluated by the Army Audit Agency (AAA).

Introduction

Purpose.

This report is submitted to Congress in compliance with the requirements contained in House of Representatives Report 102–1015, dated 5 October 1992. It represents the Department of Defense (DOD) position regarding the disposal technology to be implemented in the facility planned for construction at Pueblo, Colorado.

Background.

The United States Army has been pursuing two technologies, the baseline technology and the cryofracture technology, both based on incineration process for destruction of toxic chemical agent and contaminated parts, but each using different processes to access the toxic agent fill found in the chemical munitions.

The Baseline Process.—The baseline process is one of reverse assembly involving the mechanical separation of explosive components; draining of agent; and incineration of agent, various munition components and dunnage in four separate incinerators. The baseline process requires specially designed incinerators for the specific purposes of destroying the agent (liquid incinerator), burning energetic material (deactivation furnace), heat-treatment of metal containers (metal parts furnace), and destroying trash and dunnage created by the operation (dunnage incinerator).

The baseline process for chemical demilitarization involves the following basic process blocks: munition transport; manual unpacking and dunnage removal; automated separation of explosives, agent, and metal parts; incineration of explosives; incineration of agent; thermal decontamination of metal parts; incineration of dunnage; wet scrubbing and particulate removal of gaseous incinerator emissions; conversion of wet scrubber brine to solid salt by evaporation; and containerization of salts for eventual disposal in hazardous waste landfills.

The baseline process has been under development since the mid-1970's. Early tests were conducted at the Chemical Agent Munitions Disposal System (CAMDS). The Johnston Atoll Chemical Agent Disposal System (JACADS) facility is in operation at Johnston Atoll in the south Pacific Ocean. A second facility is undergoing systemization testing at Tooele Army Depot and scheduled to start operations in the spring of 1995.

The Cryofracture Process.—The cryofracture process embrittles certain munitions by soaking them in liquid nitrogen baths, which allows the subsequent fracture of the munition and all its components by a large hydraulic press prior to incineration.

The exception is bulk munitions which are not immersed in the liquid bath. These containers are drained of their agent; the container is crushed and sheared; then both are processed in a thermal destruct system (TDS kiln). The cryofracture design requires only one incinerator for processing munition, agent, and dunnage. The TDS burns agent, destroys energetics, and treats metal parts simultaneously.

The cryofracture process involves the following basic process blocks: munition transport; robotic unpacking and dunnage removal; cryo-cooling of explosively configured munitions; fracturing or shearing of the cryo-cooled munitions in a hydraulic press; simultaneous deactivation, incineration, and decontamination of explosives, agent, metal parts, and dunnage in a TDS; wet scrubbing and particulate removal of gaseous incinerator emissions; conversion of wet scrubber brine to solid salt by evaporation; and containerization of salts for eventual disposal in hazardous waste landfills.

For bulk items (ton containers, spray tanks, and the like) in lieu of cryo-cooling: bulk container is accessed and agent drained and collected in a holding tank and fed to the incinerator at a controlled rate; and bulk containers, after draining, are sheared and fed to the TDS.

The Cryofracture process has been undergoing Research and Development since the early 1980's. The program however, has been put on hold on at least two occasions. Testing was restarted in 1990. At that time the Army committed to completing developmental testing and initiated process and facility designs.

Technology testing and designs

Baseline Process.

Lessons Learned.—As mentioned earlier, the baseline technology has been under development since the mid-1970's. Testing of parts, components, process systems, and procedures were conducted at CAMDS. These tests and processes development were fundamental to the designs employed in the JACADS facility. Further, the Tooele Chemical Agent Disposal Facility (TOCDF) designs incorporated the lessons learned from JACADS. The Anniston Chemical Agent Disposal Facility (ANCDF) designs incorporate all lessons learned to date.

JACADS Operational Verification Testing.—Public Law 100–456 required that the Army demonstrate the ability of the JACADS facility to demilitarize munitions consistent with the safety and environmental protection goals of the Chemical Disposal Program. This demonstration, called the Operational Verification Testing (OVT), consisted of four distinct tests involving different agents. The evaluation provided an overview of the overall concerns with respect to safety, environmentally-sound operations, and process performance. The testing took place between July 1990 and March 1993. More than 40,000 munitions were destroyed over a period of 32 months. The OVT conclusions included:

—There were no public or worker injuries or fatalities from agents or munition fire or explosion, and the plant met established safety and environmental goals.

—JACADS demonstrated its ability to destroy rockets, ton containers, and projectiles containing three types of agent. The plant approached or met short-term throughput goals, but did not meet long-term average process rate goals. Although not achieving the throughput goals specified prior to OVT, the performance was within the range of start-up performance for similar industrial pioneer processing plants.

—The JACADS design has no apparent fundamental problems in achieving safety and environmental goals at planned U.S. plants, although continued improvements in these areas will increase further the assurance of safe, environmentally-sound operation. The implementation of the lessons learned from the OVT combined with additional engineering refinement should enable JACADS and U.S. plant performance to approach or exceed the OVT throughput rate and design goals.

OVT Certification.—The Secretary of Defense certified to Congress on 24 August 1993 that the JACADS facility demonstrated its operational capabilities. The certification document stated in part that the OVT program phases were observed by an independent agency, The MITRE Corporation. In addition, the Environmental Protection Agency (Region IX) and the Department of Health and Human Services (Centers for Disease Control) provided oversight during the OVT.

Cryofracture Process.

Testing.—Testing of the cryofracture technology may be divided into three phases; (i) initial feasibility tests, 1981–1983, (ii) design development tests, 1985–1988, and (iii) design verification testing (DVT), 1990–1993.

The earlier tests were designed to prove-out the feasibility of the technology being explored. The second set of tests began to determine the behavior of some sub-system components and attempted to close data gaps identified by Army personnel and other interested agencies. The DVT, started in 1990, intended to prove-out processes and to further close data knowledge gaps.

Design Verification Testing.—Approximately 40 individual tests associated with process systems and sub-systems were conducted between 1990 and 1993. Major system areas tested included: Unpack and cryo pre-treatment systems, Material Transfer Robot (MTR) and cryobath systems, press system, integrated robot line, and thermal destruct system.

The DVT program evaluation, conducted by an independent agency, The MITRE Corporation, concluded in part that the DVT program has narrowed many of the data gaps that were identified in the earlier assessments of the cryofracture process. Specifically, the DVT program has:

—Provided information that has improved the process design, decreased performance uncertainties, and further enhanced the operability of individual subsystems.

—The design throughput rates and process capabilities of front-end robotic subsystems were verified.

—Integrated testing involving robotics, cryofracture, and incineration introduces some uncertainty in projecting the anticipated performance of a disposal plant. Such integrated tests, simultaneously involving live agent and explosives in actual munitions configurations, could not be conducted in the cryofracture DVT program due to physical and environmental constraints on existing test fixtures at La Jolla, California; Dugway Proving Ground, Utah, and CAMDS at Tooele Army Depot, Utah.

—In the absence of integrated test data, reasonable estimates of plant processing capability can only be made by using design rates, those subsystem results demonstrated during DVT, and plant operations simulation models.

Technology comparisons

Technology comparisons.

The baseline and cryofracture technologies were compared for technical differences. This comparison revealed the benefits and shortfalls of each process. The significant effects resulting from the implementation of each of the processes are shown below:

Categories	Baseline	Cryofracture	Effects
Processing Philosophy	Flexible, buffered	Single-line, close-coupled	Cryofracture process requires all processing operations (for example, cryo-pretreatment) to be operational for the processing line to function. The baseline process can function even if certain processing operations are inoperable.
Incineration Methodology	Four incinerators (MPF, DFS, LIC, and DUN).	1 incinerator[1] (TDS)	As previously stated, if TDS is inoperable, the cryofracture process can no longer destroy agent. However, the baseline process can still destroy agent if the DFS and MPF were inoperable.
Processing Methodology (projectiles)	1. Disassemble munition	1. Cryo-pretreatment	1. Cryofracture process is insensitive to irregularities in stockpile munitions.
	2. Drain agent	2. Cryofracture	2. There may be additional hazards in the cryofracture process due to liquid N_2 bath.
	3. Thermal deactivation —Agent incineration (LIC) —Energetics —Metal parts decontamination (DFS/MPF)	3. Thermal deactivation (TDS).	
Maintenance Philosophy	Demilitarization protective ensemble (DPE) entry to processing area to repair malfunctioning component.	Some redundant on-line components exist in CIDP, which may be robotically replaced w/o DPE entry.	There are less DPE entries in cryofracture process to repair components.

[1] Optional dunnage incinerator.

An overview of the databases and the comparative technique used in the assessment is summarized below:

Data Quality.—The quality of data refers to its suitability as a reliable basis for estimating and projecting (using models and engineering judgement) the future cost, schedule, technical performance, safety, and environmental compliance of disposal plants. When data quality is rated high, performance can be estimated and predicted with little uncertainty. In contrast, when data quality is rated low, the uncertainty is high when making projections about ultimate performance.

The technical data used to support the comparative evaluation was obtained from the baseline JACADS OVT program and the cryofracture DVT program.

The empirical data obtained from OVT is based on integrated operations of the full-scale disposal plant at JACADS. The OVT database provides actual plant operating experience for destroying different munition types in the stockpile inventory (except for mines).

The empirical data obtained from DVT is based on nonintegrated prototypic subsystem testing. The cryofracture facility would be a first generation facility, and as such, no integrated testing has been conducted.

The analysis compared the two processes to determine what experience from the baseline process could be transferred to the implementation of the cryofracture alternative. This comparison involved a detailed assessment of the process configurations, equipment, operating conditions, tests, and environmental and safety considerations. Technical experts have assessed the quality of the empirical and comparative data to categorize it as high, medium, and low corresponding to the confidence in the data's certainty (see table 1).

TABLE 1.—ASSESSMENT OF DATA QUALITY

	Data base quality rating	
	Baseline	Cryofracture
Construction:		
MDB [1]	Medium	Low
Other	Medium	Medium
Equipment [2]		
Identical	High	High
Similar	High	Medium
Unique	High	Low
Operating staff	Medium	Low [3]
Training	High	Low
Systemization	Medium	Low
Closure	Low	Low

[1] Munitions demilitarization building.
[2] Acquisition and installation.
[3] Because of manpower uncertainties.

Comparative Technique.—The MITRE Corporation, in its evaluation of the two technologies, weighted the comparative data in relation to its uncertainty and quality, categorizing it as high, medium, or low. These categories were then assigned numerical factors, which when applied, quantified the risks associated with either process.

Results.—The results of the comparative analysis are summarized below:

—The baseline process is more mature than the cryofracture process. This generally resulted in a lower quality rating for cryofracture's technical and economic performance data.

—The technical maturity of baseline relative to cryofracture is reflected by a lower degree of uncertainty assigned to estimates for site cost, construction schedules, and plant performance.

—Environmental compliance and significant safety issues are not likely to be the main discriminators in the recommendation to build a cryofracture facility. There is some environmental and safety uncertainty with the cryofracture's kiln, pollution abatement system, and use of liquid nitrogen, which may increase cost and schedule. However, there are no technical areas envisioned that cannot be resolved.

—Actual experience with JACADS and hands-on training at the Army's Chemical Demilitarization Training Facility (CDTF) provide the foundation for baseline personnel training. Hands-on training will not be available for cryofracture personnel unless cryofracture-specific modifications are made to the CDTF. Therefore, training would have to be conducted on-site at PUDA concurrent with plant systemization activities adding to the overall schedule risk.

—Implementation of a cryofracture facility currently indicates no impact to the programmatic schedule. However, the quality of data available on the cryofracture process results in potential programmatic schedule risks of as much as 2.4/2.8 years. The major schedule risk components are construction, systemization, and operations.

—Site based costs increase the Pueblo Life-Cycle-Costs by $76 million to $112 million (depending on whether only the projectile stockpile at Pueblo is destroyed, or a demonstration phase is added to prove-out techniques and procedures for the disposal of other munitions not found in the Pueblo stockpile (simulant agent/explosively configured substitute munitions; e.g., ton containers, bombs, rockets, and landmines)).

Technology risks and uncertainty analysis

Risks and Uncertainties.

There are many process and schedule elements which are common between the two technologies. In some instances, however, the costs risks associated with the baseline technology are significantly less than for cryofracture. The baseline process data used in the technology comparison analysis employed actual integrated demilitarization information obtained from the first generation plant (JACADS) for operations, and at the second generation baseline plant (TOCDF) for design. In comparison, the cryofracture process is in the early stages of development where only some process elements have undergone limited prototypic subsystem testing and other key elements, such as the kiln, have undergone limited nonprototypic testing.

A Rand report, "Understanding Cost Growth and Performance Shortfalls in Pioneer Process Plants," dated 1981, and illustrated in Figure 1, indicates that as technologies mature, less disparity between the projected and actual cost is realized.

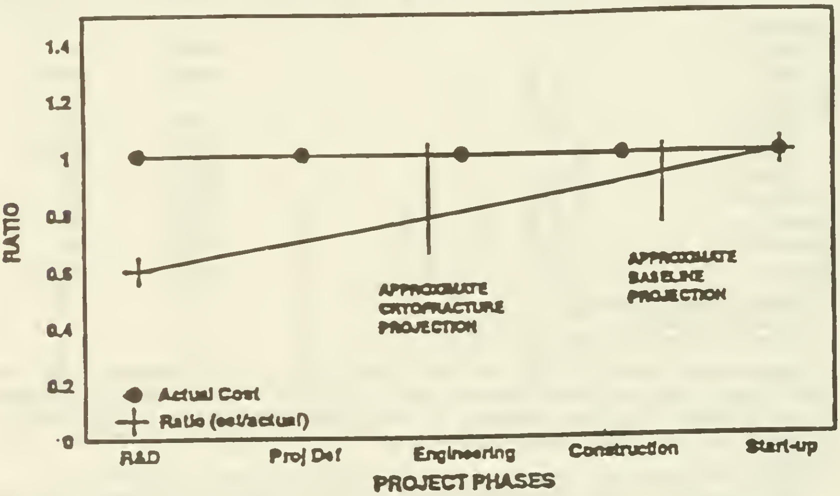


FIGURE 3.—Cost Growth Projection (Based Upon RAND Pioneer Plant Study)

The technology evaluation conducted by The MITRE Corporation, and their assessment of the risk by phase for the baseline and cryofracture technologies is as follows:

—*Design.*—A baseline plant at PUDA would be a third generation facility and is based on process and facility designs that are both 100 percent complete. This is contrasted with a cryofracture design effort which is currently ongoing. The cryofracture process design is approximately 80 percent complete and the facility design is approximately 40 percent complete.

—*Construction.*—The current project schedules indicate a 34 month construction duration for a baseline facility and a 37 month construction duration for a cryofracture facility. There are unique requirements in the cryofracture construction such as the facility foundation support. Cryofracture requires caissons down to bedrock because of the significantly taller Munitions Demilitarization Building (MDB) (103 foot versus the 44 foot tall baseline structure).

—*Systemization.*—Systemization planning for the baseline plant is based on the experience obtained at JACADS and the planning for TOCDF. In addition, the personnel performing this systemization will have the benefit of hands-on training at the CDTF. Cryofracture systemization is based on the assumption that it is comparable in effort to the baseline facility. This assumption was made considering the simplicity of the design for cryofracture. Conversely, cryofracture has no systemization experience. It has not demonstrated the strong similarity to established current or prior processes, as in the case of the baseline process. In considering these facts, there are significant uncertainties associated with the cryofracture systemization; and there is the potential for additional cost and schedule impacts which could result in an increase of $30 million (fiscal year 1992 dollars) and 12 additional months over current schedule projections.

—*Operations.*—The planned schedule for the baseline operations is 94 weeks versus the cryofracture schedule of 73 weeks to destroy the inventory at PUDA. The cryofracture operations schedule is based on theoretical throughput rates and limited prototypic and nonprototypic testing. Considering the lack of experience and typical problems inherent in achieving projected rates in pioneer plants, there is a high degree of risk associated with the operation schedule for a cryofracture plant. This is reflected in a potential increase of approximately $90 million (fiscal year 1992 dollars) in cost, as projected by the Army Audit Agency (AAA) and concurred in by the U.S. Army Cost and Economic Analysis Center, and 80 weeks increase in schedule.

—*Closure.*—The risk associated with this element of operations was assessed as equal for both technologies.

Summary of Risks and Costs.

The projection of costs and schedule predictions for the baseline process are based on years of experience including JACADS, CDTF, and TOCDF. There is also other related experience obtained from Rocky Mountain Arsenal and CAMDS operations. This is contrasted by the limited experience of subsystem testing and theoretical modeling performed for cryofracture. Since no additional information will be made available before a plant is constructed, the risks stated above are not likely to be mitigated. Based on the current information, the potential exists that a cryofracture facility could extend its projected schedule by as much as 30 months. The AAA, on 20 August 1993, indicated to the Acting Secretary of the Army (Installations, Logistics and Environment), that life cycle costs for a cryofracture facility could be understated by as much as $241 million.

Department of the Army recommendations

The Army position is based on the following considerations:

—The cryofracture process is a less mature process. Specifically, it will be a first generation process when compared to the baseline process being a third generation process as it applies to PUDA. To date, an integrated cryofracture process has not been demonstrated as a total system. Not a single munition has been demilitarized using the cryofracture process. In contrast as of this date, in excess of 71,000 munitions have been processed by the integrated baseline process prototype facility.

—The NRC report, "Demilitarization of Chemical Weapons by Cryofracture: A Technical Assessment," (National Academy Press, Washington, D.C., 1991), stated, "To the extent that the incinerator testing fails to duplicate the magnitude of the probable surges in demand on the (cryofracture) pollution abatement systems (PAS), from highly unsteady mixed burning of energetics along with a full charge of agent, the PAS cannot be deemed to have been adequately tested. With the potential for PAS failures which could lead to emissions or releases of toxic materials not well addressed in tests conducted to date or currently planned, a major redesign of this critical area may eventually be required." Thus, the impact on the environmental risks are unknown at this time.

—The schedule and cost risk factors for the cryofracture facility are considerably greater than for a baseline plant. No integrated operations of the cryofracture process have taken place due to limitations in the test facilities. Therefore, only extrapolations of limited empirical data coupled with incineration modeling and calculations can be used to generate estimates of throughput, overall environmental performance, and overall process performance. Although the results to date in the test programs do not contradict the models and calculations, the risk remains. The NRC states, "the panel believes, that although there exists a reasonably good chance that the cryofracture process can eventually be made to operate safely, the start-up time for the proposed full-scale facility * * * might be extended over several years, and major modifications or even a complete replacement of the currently designed incinerator and PAS might well be required."

—Current cost estimates show significantly higher capital costs for the cryofracture versus the baseline facility. Although the operating period for the cryofracture plant is projected to be five months shorter, thus reducing operating costs, this differential is not sufficient to overcome the higher capital investment cost.

—Public acceptance of the cryofracture technology is unknown. Both technologies are highly likely to encounter resistance due to the incineration process used by either technology. However, the public will most likely view the cryofracture process as experimental in nature and conclude that there is a potentially higher risk with the cryofracture process.

Nevertheless, there are certain inherent advantages in the cryofracture process as summarized below:

—The cryofracture process is especially adept at processing projectile munition types with only one process step required to properly access agent and explosives for subsequent destruction compared to multiple process steps required to disassemble these munitions in the baseline technology.

—The cryofracture process is not affected by the condition of the mustard agent in the munition at PUDA (foam, pressurized, solid, and liquid are all acceptable). In addition, greater flexibility of the cryofracture process will accommodate any nonstandard or out-of-specification munitions.

—A potentially safer worker environment is created from the remote modular replacement capability in the cryofracture process. However, this is somewhat offset by the introduction of liquid nitrogen into the work environment.

National Research Council

NRC Committees.

The Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program (Stockpile Committee), National Research Council (NRC), was established in 1987, at the request of the Under Secretary of the Army, to monitor the disposal effort and to provide review and comment on pertinent issues.

As a result of public concern over the incineration process, the technique used by the Army to destroy chemical agents, the Committee on Alternative Chemical Demilitarization Technologies was established in January 1992. This Committee was to develop a comprehensive list of alternative technologies and to review their capabilities for their potential to replace incineration.

A report, "Alternative Technologies for the Destruction of Chemical Agents and Munitions", was published in June 1993. This report was used as reference by the Stockpile Committee to assist with preparation of the "Recommendations for the Disposal of Chemical Agents and Munitions" issued by the NRC in February 1994.

NRC Recommendations.

In the February 1994 report, the NRC includes an endorsement of the baseline technology. One of its recommendations states that, "All disposal systems should be designed to separately process agent, energetics and associated small metal components, large metal parts, and dunnage streams." This is based on the finding by the NRC that "Chemical agents and munitions materials have been successfully divided into four distinct streams having widely differing properties. Separation of these materials for processing in distinct, well-engineered systems provides a safer and more reliable operation than would processing of a mixed stream in a single process."

A further recommendation indicates that, "The Army should continue with mechanical methods to gain access to agent and to separate material streams. Alternative mechanical systems should be pursued if simpler, more durable concepts, which also permit separation of the streams, are discovered."

In another section of the report the NRC states, "The only alternative to these baseline operations that has been considered extensively is the cryofracture process, in which assembled munitions are crushed after being cryogenically cooled in a liquid nitrogen bath. The resultant mixture of agents, energetics, and metal fragments is then fed, without separation, into a single rotary kiln, similar to but larger than the base-line deactivation furnace system. The Stockpile Committee has not recommended this process (NRC, 1989B, 1991a–c)."

Department of Defense (DOD) preferred alternative

DOD Course of Action.

Most promising Alternative.—After a thorough review of the baseline and cryofracture processes, the JACADS OVT and cryofracture DVT, the MITRE Corporation evaluation of the two technologies, the Army's recommendation regarding the destruction facility for Pueblo, AAA's report to the Acting Assistant Secretary of the Army, the National Research Council concerns and recommendations, and public opinion regarding the two technologies, the Department of Defense concludes that the most promising technology, and the preferred alternative for implementation at Pueblo, is the baseline technology.

The Department also recommends that the cryofracture plant designs be completed as a backup measure should they be needed.

Rationale.—The baseline process is more mature and is an operational tested process compared to the cryofracture process.

The NRC has expressed serious concerns regarding uncertainties caused by the lack of an integrated, representative testing database which could result in extended start-up periods, with the possibility of major equipment modifications. To date, integrated operations have not been demonstrated nor has a single chemical munition been destroyed by the cryofracture process. In short, the testing database relating to the cryofracture process is insufficient to predict with the same accuracy the overall success of a cryofracture facility as compared to a baseline facility.

MITRE's assessment of programmatic impacts indicates a potential for considerable schedule risk. Regarding worker/public safety risks and environmental compliance, there are negligible risk differences between the baseline and cryofracture processes. The NRC, however, expressed specific concern over the ability of cryofracture to meet environmental compliance.

Due to uncertainties, the AAA stated that the costs of a cryofracture facility at Pueblo could be understated by as much as $241 million.

In its latest report (February 1994) the NRC supports the mechanical separation of munition components to separate material streams for processing.

Essentially, there is no definitive information to conclude that a cryofracture facility at Pueblo would be more cost-effective, environmentally superior, or safer.

CHEMICAL WEAPONS CONVENTION [CWC]

Senator STEVENS. I just have two questions regarding the time line here. We have before us the Chemical Weapons Convention. It has a date in it that requires complete destruction by 10 years after the entry in force of that agreement. It has not been ratified yet by the Senate. The earliest date required by the CWC now would be 2006. It is my understanding that an amendment is to be offered to the Defense authorization or appropriations bill to eliminate the current congressional deadline and rely upon that contained in the CWC.

Let me ask you, Dr. Smith. In your opinion, should we continue the 2002 date in law or should we yield to the timeframe of the CWC?

Dr. SMITH. Mr. Chairman, I recommend most strongly that the Congress not change its mandate, that we proceed to eliminate this stockpile by the year 2004, which is currently the law. General Orton has said——

Senator STEVENS. I thought it was 2002.

Dr. SMITH. I think it is 2004. And if the CWC were ratified this year, then we would have international commitments to eliminate the stockpile by 2007; 2004 is the current date that we can meet and, because the longer we wait the greater the risk to the public, therefore, we prefer to stay on the track that we are on, which eliminates these fearsome weapons by the year 2004.

We would be not in favor of an amendment to release us from that obligation.

PUEBLO CHEMICAL DISPOSAL FACILITY

Senator STEVENS. Last question for me. General Orton, my staff has noted that a recent letter from the Army anticipates significant delays in the Pueblo chemical disposal facility and that the top environmental regulator of the State of Arkansas has publicly stated that approval for the Army to build the chemical weapons incineration at Anniston Army Depot may be delayed another year.

In view of that fact, is there a necessity for the $30.8 million in the long lead items for Colorado or the $23.4 million for the long lead time equipment for Anniston?

General ORTON. Let me separate the two questions, if I may.

Senator STEVENS. They are two separate questions, but it is the same principle.

General ORTON. And I will answer Anniston first.

Senator STEVENS. There is a substantial delay been announced in both situations. Why do you need long lead time if you have still got at least 1 year before you get approval of either site?

General ORTON. To the best of my knowledge, Director Warr at the Alabama Environmental Division has not——

Senator STEVENS. I am talking about Arkansas.

General ORTON [continuing]. Has not subscribed to any delay in that program beyond what is currently expected.

Senator STEVENS. I am corrected, I am corrected. It is Alabama, you are right. I beg your pardon.

General ORTON. The situation at Pueblo is one in which we have been informed by the State that the permitting work will take longer than originally anticipated. Also, there is a conflict in State and local regulation that has to be clarified for us at least, and at that point I will put the program on hold until we sort that out.

We anticipate being able to move forward with that action within the timespan allocated for use of that funding in the incremental mode. So at this point in time I am not going to say that we have no need for that money. We believe it is a valid need and we would support the President's budget numbers.

Senator STEVENS. Thank you very much. I have a series of other questions I will submit to you gentlemen.

I am a little bit disturbed, Dr. Magee, that we will wait until August before we even get that report, because we are going to mark up our bill in July. So, in effect, the necessity for funding for alternative technologies cannot be substantiated until we get the report. That timeframe is not very conducive to funding by Congress.

Senator Inouye.

Senator INOUYE. Thank you very much, Mr. Chairman.

Just as a matter of clarification, Dr. Smith——

Dr. MAGEE. I would just like to make one comment, just so there is no misunderstanding, Senator. The task statement that was given to the NRC required us to complete that report in August 1996. We are on schedule as we accepted the work, the task assignment. So if you are disturbed with it, this should be nothing new.

I want you to know that we have been working extremely hard, hundreds of hours. I have been in Washington 3 days already on this program in the last couple weeks. And the delay is not a delay in the committee.

JOHNSTON ISLAND

Senator STEVENS. My being disturbed has nothing to do with you. It has to do with the fact that Senator Inouye and I have been sitting here since the inception of this program and it has been full of delays, delays, delays, and expenditures that were fully justified at the time that now prove to have been rather wasteful as a matter of fact.

I think we have got to get to the point where we have some better understanding of where we are going on this program and get it done.

Senator.

Senator INOUYE. Thank you.

Just on Johnston Island, by the year 2000 all of the munitions agents will be destroyed on that island?

Dr. SMITH. That is correct.

Senator INOUYE. And soon thereafter the facilities will be neutralized or destroyed?

General ORTON. Yes.

Senator INOUYE. Recently a large stockpile of chemical weapons was discovered on the border of the District of Columbia. Are you satisfied, Dr. Smith, that we have completely identified all of the agents, whether in bulk or munition form, in the United States?

NONSTOCKPILE PROGRAM

Dr. SMITH. No, sir; we have to be ever alert to just that possibility. And we have a nonstockpile program that actually pursues just that question. Dr. Prociv can address that in greater detail if you like, sir.

Senator INOUYE. Please do.

Dr. PROCIV. In the nonstockpile program we are addressing a number of different contingencies which we did not in the actual stockpile program. The largest part of the nonstockpile program is the buried munitions program, the kits that we at one time had developed for testing and training and such.

We have estimated in our last report that there are more than 315 potential sites, just based on record searching, where we may have materials, and we are actively pursuing those. In addition to that, we do have a treaty requirement in the nonstockpile program to get rid of the small quantity of binary munitions which we produced, the production facilities, and other material associated with filling and treating these projectiles. And this also is spread around the country.

So we are getting our hands around it, but we do not have the actual answer.

Senator INOUYE. 315 potential sites. Are the communities in the vicinity of these sites appropriately notified?

Dr. PROCIV. We have notified the local authorities, the politicians, the emergency response people, yes. Most of these are located on military bases and the first respondents will be there from the military bases.

The ones that get our first attention are the ones we know about and the ones that might pose a hazard to either people or the environment.

MINOR LEAKS AT JOHNSTON

Senator INOUYE. General Orton, recently reports were provided that there were minor leaks at Johnston. Were any of the individuals on that island placed in jeopardy?

General ORTON. No, sir; they were not. The systems to deal with those kind of leaks were fully in place and operated according to their specifications. There were no injuries. People were referred to the health clinic and monitored to make sure they had no injuries, but none came forward. There were no injuries.

Senator INOUYE. I would like to ask a question of Dr. Magee as to the report. You are insistent that September 1 would be about the right time?

Dr. MAGEE. Some time in August. I have got two staff members of the NRC behind me who would probably strangle me or shoot me if I were to reveal any of the points.

Senator INOUYE. Well, I thank you very much.

May I submit questions also?

Senator STEVENS. Yes; we will all be submitting questions, I think.

Senator Shelby——

Dr. MAGEE. But I would offer, Senator, I would be more than happy to come back September 1 to answer any questions.

Senator SHELBY. Thank you, Mr. Chairman.

PUBLIC OUTREACH PROGRAM

Senator STEVENS. I have one question, and I am not a very good, attentive person, but, Dr. Smith, I sort of think that the country wants a little bit more real understanding of what is going on and why these delays are going on. Are we going to get some better understanding of that?

This has been sort of a textbook presentation here, but what is wrong? Why are we not getting this job done in time?

Dr. SMITH. The first step we should take and we did take as soon as the Clinton administration took office was to insist that the Army establish a public outreach program. This is not a case of recalcitrant citizens impeding the progress that is in their own best interests. This is a case that we must educate the public on what we are doing.

General Orton reported quite correctly that the Army has established outreach offices in each district so that we can educate the people, just as you put it, Senator, in textbook manner. That is, this is what we are doing, this is why we are doing it, this is when we will do it, this is how much it will cost.

This is a democracy. We have to get the people educated or we will not succeed. I do not think in the past those public outreach programs—they were not in being and the public was not allowed to understand.

General Orton quite correctly pointed out we have only recently been able to declassify this program so that we can at least talk about it in public arenas. I am hopeful that the delays that you refer to in the past will not exist in the future, primarily because the citizens of Utah have the courage to bring that plant on line. And I think it is going to be a success.

As the success is observed and as the very excellent presentation that the NRC can make anywhere in the United States—and Dr. Magee and his predecessor Dr. Peterson were quite willing to travel to any site in the United States to bring the scientific expertise and independence of the NRC to the citizens of those areas.

Given success at Johnston Island, which I reported on this morning, given success in Utah, given the Army's now extensive outreach program, and given the willingness of the independent evaluators to travel, I think we can assuage the fears of the public. It is not an easy job.

Senator STEVENS. Sorry, Senator Shelby.

Senator SHELBY. Thank you.

RISK ASSESSMENTS

What we are interested in, I hope, is safety first and last. We accept the premise and that we are going to have to dispose of these weapons because they are deteriorating and you have got a risk factor that Dr. Magee talked about. The alternative is a risk 10 times more by doing nothing as opposed to processing—is that right, Dr. Magee?

Dr. MAGEE. The early risk assessments would indicate that the storage risk was at least an order of magnitude at all sites over the processing.

Senator SHELBY. 10 to 1?

Dr. MAGEE. 10 to 1 at least. I will say that the reconfiguration at Aberdeen has probably made that 1 to 1 there. But in general, in most sites, yes.

Senator SHELBY. Public safety is paramount to those of us that represent these communities. Even those Senators that do not have a facility like I do or like the Senator from Utah and the Senator from Hawaii do, are interested in the safety of the American people.

Now, General Orton, you mentioned in your response to a question by Senator Inouye dealing with Johnston Atoll you did have some leakage there, is that right?

General ORTON. Not recently. I think he was referring to——

Senator STEVENS. Could you use the mike.

Senator SHELBY. Did you or did you not have some leakage of chemical at Johnston Atoll?

General ORTON. Yes.

LEAKS AT ANNISTON

Senator SHELBY. Now, what if there were similar leakages in the Anniston area with a population of say 130,000 or 140,000 people? Could that have caused a real problem?

General ORTON. Not the leakage that we experienced.

Senator SHELBY. Not that type of leakage. And I know from what Dr. Magee says, nothing is going to be perfect. As to relative risk, you have concluded that on-site incineration, at this time, the Army believes is the best alternative, considering everything; is that right, General Orton?

General ORTON. Yes, sir.

Dr. PROCIV. If I may, sir, let me just comment.

Senator SHELBY. Yes, sir, Dr. Prociv.

Dr. PROCIV. There were two events that were reported or that happened. It should be noted that it happened when the incinerator——

Senator SHELBY. Are you talking about Johnston?

Dr. PROCIV. Johnston Island. Both of those events happened when the incinerator was not operating. Both happened as slight upsets in the process during the shutdown. One was well below any detectable level but the Army chose to report it anyway. The other one was just slightly above what the legal requirements were to report.

None of those would in any way have caused any harm or damage. It was dissipated very, very quickly. And for a plant which is serial No. 1, which is our trial, we consider that a very successful operation. Those two, although we were greatly concerned when they happened and we fixed the problem, were not in any way a danger to the public or the environment.

Senator STEVENS. Senator, could I interrupt there, gentlemen. I have just been informed, Dr. Smith, that you have an appointment with some French officials at 11:25. You must leave at 11:25, is that correct?

Dr. SMITH. I regret that it is true, sir.

Senator STEVENS. We like to honor those commitments of our witnesses. May I ask, Senator Shelby, if you have any questions of Dr. Smith, or if Senator Bennett has any questions of Dr. Smith, if you could complete them within that timeframe, the next 10 minutes, please.

Senator SHELBY. Thank you.

Dr. SMITH. Thank you very much, Mr. Chairman.

Senator SHELBY. Dr. Smith, how do we allay the fears of our constituents in these areas where these storage facilities exist today? What do we say to them when their concerns are real. These are not things that people imagine. Heck, if I were living in the Anniston area my concerns would be real. How do we allay those fears?

We are going to build, for example, if you do, the incinerator at Anniston. What do I tell the people there, that it is going to be safe, period? Or is it going to be the safest technology or the best? There is quite a difference, is there not?

Dr. SMITH. I would like to believe, Senator Shelby, that this hearing and any followup to the questions that will be submitted will put you personally at ease with regard to living in Anniston.

Senator SHELBY. Not just me, but the people who live there.

Dr. SMITH. That is right. I accept that. But our first job is to convince you.

Senator SHELBY. Absolutely.

Dr. SMITH. Now, if we can convince you then we should pay any price, bear any burden, to educate your constituents.

Senator SHELBY. That is right.

Dr. SMITH. Because education is the key here, because if we can in the period of 2 hours convince you then we will certainly find comparable periods of time to convince your constituents. I see no other way. This is a democracy. We have to convince the people that we know what we are doing. We will start, hopefully, with you, sir.

Senator SHELBY. Dr. Magee, if we accept the fact, which is basic, that technology is continuing to evolve in every field, and it is certainly continuing to evolve in the field of disposing of chemical weapons, without getting into your report, what are some of the alternatives to incineration?

NEUTRALIZATION-BASED TECHNOLOGY

Dr. MAGEE. Well, the alternatives that are being considered are basically fivefold. The Army is developing what is called a neutralization-based technology, which would be to react the agent with a water-based system. It could be water with sodium hydroxide.

Senator SHELBY. Hasn't that been basically rejected by the Army?

Dr. MAGEE. No; it has not been rejected at all. It is on the table.

Senator SHELBY. But it has not been adopted, has it?

Dr. MAGEE. Nothing has been adopted.

Senator SHELBY. Except incineration.

Dr. MAGEE. That is right, and the reason being that the neutralization work that had been done by the Army back in the seventies had raised serious questions about both the total magnitude of the neutralized product and some of the byproducts in there.

I will point out, however, that, since I went to Iraq after the war, we actually got rid of all Saddam Hussein's GB by a neutralization technology. Neutralization can work. To the best of my knowledge, there has been almost no experience with neutralization of mustard prior to the Army's extensive effort. So neutralization is one base technology.

However, the question then becomes, the neutralized products, what do you do with them next?

Senator SHELBY. What is the problem? Let us go into neutralization just a minute. What are the positive aspects of neutralization as opposed to the negative?

Dr. MAGEE. Well, the positive is——

Senator SHELBY. As you see it as a scientist.

Dr. MAGEE. It can be conducted at relatively low temperature and low pressure, which many citizens seem to feel is an advantage because there is less chance for maybe something to go wrong.

Senator SHELBY. It makes them feel—you say it might make them feel there is an advantage. But is it an advantage? There are two different things.

Dr. MAGEE. Well, I would suggest that in general low temperature, low pressure processes are easier to control than high temperature, high pressure—not universal. We do a lot of high temperature, high pressure processes.

Another advantage people seem to like about it is it is called a batch process. In other words, rather than continuous, where, incineration, where you put the agent in one end and it goes all the way through the system and out the other end, you can conduct it in a series of steps, OK, and, therefore, you can wait in the reactor and after 2 or 3 hours you can go in and take a sample and determine whether or not, what the residual agent level is, has the reaction gone to completion, what are the other products?

So I think those are some of the ideas that people like. The idea of being able to what we call test prior to release, the idea you can decouple steps rather than continuous, which says from a control sequence it is a little bit easier to control. So that is one aspect.

However, you still have to ask a question of yourself, can you put a system together that will start with agent in and will result in a product, a residual stream at the end, that you can then release to the environment? Somewhere it has got to go someplace. I mean, it is just not going to sit there forever.

So that then says, do you follow up, say for example, by biological treatment, which goes on in your normal waste water treatment plants, or other processes. So that is one of the processes.

WASTE WATER TREATMENT PLANT

Senator SHELBY. But there is a great deal of difference between this and a waste water treatment plant, is there not?

Dr. MAGEE. Well, it is, but waste water treatment plants can be designed with proper bugs to take care of certain types of chemicals. But again, I think you want to go back to the presentation you heard earlier. Neutralization by itself only takes care of the agent. It does not take care of the energetics, it does not take care of——

Senator SHELBY. So neutralization in your opinion is flawed, in a sense?

Dr. MAGEE. No; it says, it looks at one part of the waste stream. The question was asked before——

Senator SHELBY. Well, how do you take care of the other, then?

Dr. MAGEE. Well, you have got to remember, these alternative technologies right now are only being evaluated for the two bulk storage sites. The bulk storage sites do not have the complexity, as Dr. Prociv pointed out, of what you see over here. So it was a natural place to begin. It was a natural place to say, those sites are different. Those sites require a different challenge than, say for example, Anniston or Umatilla, which have very, very complex—first of all, you have got three agents at those sites; these other sites you have got one agent. You have got munitions as well as bulk storage; here you have only got bulk storage.

So again, so you do not have unrealistic expectations of the report, the report is specifically addressed at how do you handle two agents, VX at Newport, mustard at Aberdeen, in a 1-ton cylinder—no energetics, no propellants, none of the other problems or challenges that Dr. Prociv mentioned before.

Senator SHELBY. Other than neutralization, what is the other alternative?

Dr. MAGEE. The other ones, there is another process which is in a sense what we might call low temperature, low pressure, and batch, which is an electrochemical process being developed—well, in this country the one we are looking at is being developed in the United Kingdom, where they use what is called electrochemical cells, where they do the reaction using what is called electrochemistry, basic electrochemistry.

Senator SHELBY. What is the risk factor there? Is it known?

Dr. MAGEE. Well, risk is being looked at. It involves multiple steps. It involves some acid reactant materials. But again, it tends to be a process that people, that in some people's mind they like because it is low temperature and low pressure through a multiprocess.

There are two other processes that are being looked at, which both of them are using higher temperature and in one case higher pressure. One is using a molten metal bath to, rather than carrying out the reaction of the elements in air as a combustion process would be, they break down into the elements and form what they call a syn gas. In fact, both of the other two processes produce something which is a synthesis gas, where they try to scrub out the phosphorus, the sulfur, and the chlorine, which are three of the elements that are in the thing, and then take the synfuel gas—both cases now, I think both of them have changed their processes to analyze, hold, and analyze—and then they burn the gases in either a heat recovery boiler or to generate electricity.

So they are more of a continuous process rather than the other one, but they do have an internal point where they can test the materials in between. So they are significantly different. I think that is going to be one of the issues when we sit down, when we have done whether they are technically viable, point out any concerns we may or may not have about those, any recommendations.

I think you find out almost in all cases when citizens get involved they will begin to ask some of the same questions they ask about the baseline technology. But they are different. They clearly carry out the agent destruction process in a different way than the basically incineration, and as a consequence when the Army selected those technologies to be given to the NRC the one criteria they used, that they not be incineration. We were not going to go back into that, in other words, which basically is what we call high temperature oxidation.

Senator SHELBY. I am going to pass right now and come a second time.

NEUTRAL TECHNOLOGIES

Senator INOUYE [presiding]. Senator Bennett.

Senator BENNETT. Thank you.

You are talking regarding these neutral technologies about circumstances in Aberdeen and Newport where you have a single agent in a single kind of container.

Dr. MAGEE. Exactly.

Senator BENNETT. In Tooele we have every conceivable agent in every conceivable container. Should I assume that you have come to the conclusion that under those circumstances there really is no alternative to incineration at Tooele?

Dr. MAGEE. I have to go back to the 1994 recommendations report, which said at that point that, whereas the committee felt that one might be able to find alternatives for the agent destruction—I mean, after all, the agent is the agent. It does not care where it came from——

Senator BENNETT. Right.

Dr. MAGEE [continuing]. That we could not see alternatives for handling the energetics or at that point for decontaminating the residual materials that were in containers.

Senator BENNETT. When you say energetics, you are talking about explosives.

Dr. MAGEE. We are talking about explosives, right, as well as some of the propellant materials as well, which, as Dr. Prociv pointed out, everything is in that M55. So what happens is you drain out the agent first, but now you have got residual agent, you have got everything else together. And the question there is simply, they just shear it and put it into a rotary kiln incinerator.

Senator BENNETT. I have seen that process. I have seen them do it.

Senator STEVENS [presiding]. Senator Bennett, can I interrupt you? Are you finished with Dr. Smith?

Senator BENNETT. I am, yes.

Senator STEVENS. Senator McConnell, do you have any questions of Dr. Smith? We agreed that he could leave by 25 after if that is possible.

Senator MCCONNELL. My questions are of Dr. Prociv, so that does not create a problem.

Senator STEVENS. That is fine.

Dr. SMITH. It looks to me like I am dismissable.

Senator STEVENS. Thank you very much for your courtesy.

Dr. SMITH. Thank you, Senator.

Senator STEVENS. Leave while you are ahead, doctor.

Senator BENNETT. May I continue?

Senator STEVENS. Yes, sir, please, Senator.

Senator MCCONNELL. Oh, I am sorry.

LEAKAGE AT TOOELE

Senator BENNETT. Senator Inouye talked about leakage at Johnston Island. While I was at Tooele I was told that leakage of some sort occurs virtually every day and the Army reporting leakages or deteriorations has become so routine that the news media has stopped reporting it.

This is a manifestation of the deterioration of the munitions, rather than leakage of the agent. But, of course, if the deterioration of the munitions goes to the extent to which you were talking about, Dr. Prociv, then there is a chance that the agent will, in fact, become dangerous.

But they are constantly, Senator, going into the stockpile, examining it. Everything is monitored on a continual basis and physically examined at least once a quarter by people walking through the bunkers and looking at munitions. And they find every time they do that shells where the deterioration is sufficiently noticeable that some kind of remedial action is taken.

This underscores for me the need to get on with the program. Yes; you can contain it for 6 months, you can contain it for 1 year. You can keep repairing, if you will, these munitions so that the agent does not get out. But eventually you run out of short-term repairs, and we have got to get going on this process as rapidly as we possibly can.

So I come back to my basic question which I repeat to you now, Dr. Prociv. Given the fact that in Tooele we have every conceivable kind of agent in every conceivable kind of container, receptacle, missile, what have you, is it not imperative that we proceed as quickly as possible? And have you not come to the conclusion that incineration in this circumstance is the only logical method of disposal?

Dr. PROCIV. The short answer is yes. I might add, in my history I spent 4 years at the Dugway Proving Ground working on neutralization technology and I published some papers on neutralization. So as a chemist I come from that orientation.

But having looked at the problems of neutralization and the inability to dispose of the explosives, the materials, and such, we have really come to the conclusion that incineration is the safest and best way to dispose of all our material without leaving any residual material that might cause a risk later on.

DETECTING LEAKS

Also, if I might comment, we can detect a leaker, we have sensitive detectors now. We can detect them before we do the walk-throughs. We are detecting them before they really get dangerous. But we still have to overpack them. We seal it, overpack it, and put a canister around it. Now we have more material to dispose of.

So just dealing with leakers is actually causing our problems to continue to get worse and worse, thinking about unusual materials that we might have to contain those. They have to be disposed of. Incineration is the safest way to do that.

Senator BENNETT. What you are telling us, I think, is that dealing with leakers, while it does provide a level of safety that everyone can feel comfortable with, is, in fact, a form of increasing the size of the stockpile.

Dr. PROCIV. That is right, it is increasing the waste product.

Senator BENNETT. So the longer we wait, not only does the stockpile become less stable, it becomes larger.

Dr. PROCIV. That is right.

Dr. MAGEE. I think the other point that the academy committee pointed out, it also increases the risk to the workers involved with actually managing it, because now they are dealing with weapons and materials that are in much worse condition. There is some individual work that has to be done before it gets in that processing facility itself and there is more material for them to handle.

So whereas I think we are all concerned about the people who live in the communities, very, very much so, I do not think we should forget those that have the responsibility of actually working in these facilities themselves.

Dr. PROCIV. The propellant in the M55 rocket, if, in fact, we have agent leaking into it, we are very concerned about that. The propellant is generally made with a stabilizer which keeps it stable in storage. We do not know what that agent reaction will be with that stabilizer. We believe it is depleting the stabilizer, in which case it is making it much more sensitive. And that is where we are really basing our concern on. We cannot tell you when that first one might go off.

Senator BENNETT. I understand that the greatest risk to the worker occurs in the process of moving the munitions out of the bunker and into the incinerator.

Dr. PROCIV. Into the ONC itself.

Dr. MAGEE. Into the processing facility. It has got to get into the processing facility to get the agent out before it goes in the incinerator.

Senator BENNETT. You have to take it out of the bunker and get it into what you call the ONC. And I can assure my colleagues the ONC is——

Dr. MAGEE. Is an ONC.

Senator STEVENS. It sounds like Dr. Seuss to me.

Senator BENNETT. The thing that comes most readily to mind is a bank safe. It is a huge bank vault mounted on the top of a flatbed truck, and they swing open this vault door and then put the munitions in it and then they close it and have, I do not know, 14, 18, something, tie-downs around it.

They have to level the flatbed truck because if it is not level in any way the door will not open. It is so heavy, it has got to be exactly balanced so it will swing open and shut. It is a very impressive thing.

Once the material is inside the ONC, you are pretty much home safe, because from that point forward it comes out of the ONC in a controlled circumstance inside the plant, it is burned by robotics in the plant, the whole thing. But getting it out of the bunker and into the ONC means picking it up and lugging it under your arm almost.

That goes again to the point you are making, that if, in fact, by delaying we are running the risk of making the explosives interact chemically with the agent and have one of those blow up on you in the bunker, you will have real problems in getting into a bunker that is contaminated and try to get any of that stuff out.

Dr. PROCIV. That is our biggest concern.

Senator BENNETT. I see.

RISKS

Senator STEVENS. You raise that very interesting specter of risk. What is the risk of that going to happen in storage?

Dr. PROCIV. It is very difficult to quantify because we have no history. We have, in fact, opposing research projects going on, one saying, yes, it is going to go, one saying, we have not been able to get it to go. We are still working on trying to get the chemistry down and trying to find out what the realistic situation is right now.

It is very difficult to predict the deterioration of these things. There is no model for it and no history for it.

Senator STEVENS. Sorry, Senator. Thank you very much.

Dr. MAGEE. Let me suggest when the academy looked at it we made the following observation: You have got about 400,000 of those currently in the stockpile across the country. People run data on maybe 150 propellant samples that we have looked at. So 150 is a reasonable statistical base, but when you are trying to project statistics from 150 samples to 400,000 rockets, which each one may be in slightly different condition, no one will ever be able to guarantee you, no matter how many studies you do, that there is not one bad one in there. No one can ever do that.

I mean, we can give you all the statistics you want. You can do it with a certainty factor of this, this, this, that, and the other it will not happen. That is not to alarm anybody, but no one in our opinion, the academy, is ever going to be able to say that we can wait 20 years and nothing will ever happen. All that we can say, our best statistics tell us that we probably have *x* number of years and, with this degree of certainty, we do not expect one to ignite.

That is all anyone is ever going to be able to tell you.

Senator STEVENS. Senator Bennett.

Senator BENNETT. Well, I am through, Mr. Chairman, other than the obvious statement that the people of Utah and particularly the people of Tooele County would be best served if this proceeds as rapidly as possible. I understand they are prepared to start full operations on the first batch as early as this month, and if the first batch works then they will proceed to go forward, and the expectation is that the entire stockpile in Utah will be destroyed within 4 years; is that correct?

General ORTON. Yes.

Dr. MAGEE. Four years? Six.

General ORTON. Six years.

Senator BENNETT. I see.

General ORTON. This goes all the way.

Senator BENNETT. That is where the 4 comes from, 2004.

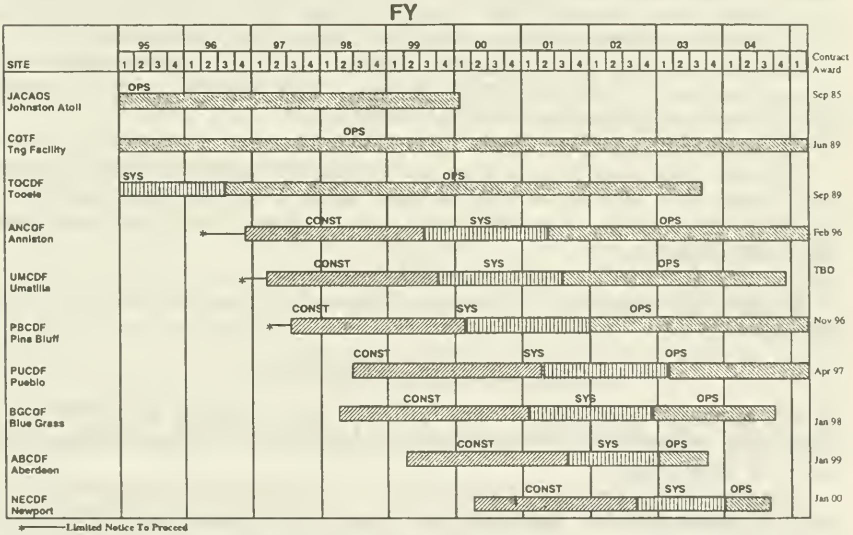
Thank you, Mr. Chairman.

Senator STEVENS. That is 8 years. How do they get 2004, 4 years? How soon will the Utah stockpile be disposed of?

Dr. MAGEE. I think it is probably the end of the period.

Dr. PROCIV. Could you put the chart up with the line.

CHEMICAL STOCKPILE DISPOSAL PROJECT (CSDP) SCHEDULE



These things become a blur after a while.

Here we go.

Dr. MAGEE. That is in 2003, the fourth quarter of 2003. 6, 7 years.

Senator STEVENS. Seven years.

Dr. MAGEE. Seven years.

Senator STEVENS. The sooner the better.

Senator McConnell.

ROCKET TRANSPORTS

Senator MCCONNELL. Thank you, Mr. Chairman.

Just to wrap up here, I gather, Dr. Prociv, you showed a picture before I got here, of an on-site container, the ONC that Senator Bennett referred to, used to transport rockets. How many rockets can be moved in one of these?

Dr. PROCIV. Let me look for some technical help here. Two pallets?

Two pallets, 30 rockets, per move.

Senator MCCONNELL. What is the risk associated with moving rockets in an ONC?

Dr. PROCIV. The risks, as was amply described by Senator Bennett, are well controlled. Probably the highest risk part is the removal from the actual bunker and placement into the ONC, which is a fairly short period, but it requires a man in a protective outfit working with a forklift.

Senator MCCONNELL. Legislation passed in 1992 by the Kentucky General Assembly requires, among other things, the Army demonstrate prior to a permit being issued by the Commonwealth that, first, a proposed treatment or destruction technology be able to destroy agents at 99.999 percent under all operating conditions, including malfunctions, upsets, or unplanned shutdowns; and two, the Army must demonstrate that no alternative method for disposal of chemical munitions exists or is likely to exist or could be developed which would pose less of a risk of harm to the public or to the environment. That is what the Kentucky statute says.

General Orton, the Johnston Island facility I gather has demonstrated that it has the ability to meet the 99.999 percent criteria under normal operations; is that correct?

General ORTON. Yes, sir; it has.

Senator MCCONNELL. It has never met it during all the cases of malfunctions, upsets, or unplanned shutdowns; is that correct? I guess I am asking, General, can any of these facilities ever meet that requirement?

Senator STEVENS. Meet what?

Senator MCCONNELL. Meet the Kentucky standard, which is this 99.9——

ALTERNATIVE TECHNOLOGY

Dr. PROCIV. We believe we can. We have looked at those numbers. We believe that we have the technology to achieve those numbers at this point.

Senator MCCONNELL. That leads me to you, Dr. Prociv. If one of the requirements to get a permit from the State of Kentucky is to demonstrate that no alternative technology is or might be available to destroy the chemical munitions, why have no funds been requested to determine if the Department can meet this mandated requirement?

Dr. PROCIV. I believe the alternative technologies program is doing just that. The alternative technologies program is running at about $16 million a year. It has been that way for about 3 years.

We expect a bump-up next year. That is, in fact, what we are trying to do, is to try to get the right kind of numbers that we can see whether we can, in fact, meet those criteria.

Now again, that will be, the alternative technology, will be for the agent only. We still have the issue of the hardware and the explosives.

Senator MCCONNELL. You are spending funds to make this determination at the bulk sites, but you have testified earlier that no funds will be spent for munitions sites; is that correct?

Dr. PROCIV. We are spending the money on the technologies which we intend to use at the bulk sites. But as Dr. Smith has said earlier, if, in fact, we do find something that is substantially better we will certainly evaluate that in light of where we are at the time.

But to be clear, you are absolutely correct, the technology right now is pointed at the bulk sites because we can get to the agent very easily. The problem with the munitions sites is it is difficult to get to the agent.

Senator MCCONNELL. I guess the question I have got is how are you going to get a permit to build the incinerator in Kentucky if you have not budgeted for munitions sites?

Dr. PROCIV. We hope to be able to demonstrate to the environmental groups and the environmental legislators in Kentucky that we can meet their numbers for emissions with the incineration process.

Senator MCCONNELL. Well, it is going to be a challenge. I guess one of your options would be to ask the President to simply override Kentucky law, would it not?

Dr. PROCIV. We would not even consider that.

Senator MCCONNELL. And what is the timetable in Kentucky? Refresh my memory.

Dr. PROCIV. Let us take a look up there again.

It is the third from the bottom. We are estimating construction start is at second quarter 1998, so that we would have to have the permit by second quarter 1998.

Senator MCCONNELL. The permit has not actually even been filed, has it?

General ORTON. We have entered in—we have done some preliminary work with the State officials to whom we apply and the first draft of the permit has been presented to them. They have already indicated that they have reservations about that. So we start a process of trying to understand what we need to do to get a permit within the bounds of the Kentucky legislation.

Senator MCCONNELL. So you believe you are going to be able to meet these standards that I just read, that are in the Kentucky law?

Dr. PROCIV. Yes, yes, sir.

General ORTON. We can meet the numbers that were articulated in the law for the operation.

Senator MCCONNELL. Well, assuming that you were granted a permit by, I gather, what is it, 1998, then you have destruction beginning in Kentucky when?

Dr. PROCIV. In 2001 first quarter.

Dr. MAGEE. No; by the last quarter of 2002.

Dr. PROCIV. Fourth quarter of 2002.

Senator McCONNELL. And then taking how long to finish?

Dr. PROCIV. To the third quarter of 2004.

Dr. MAGEE. About 2 years.

Senator McCONNELL. All right. Thank you.

Thank you, Mr. Chairman.

TRANSPORTING MUNITIONS

Senator STEVENS. Senator Shelby, you have some more questions. I am interested, though, in this recent chart and the Senator from Kentucky's comments. You are prohibited by law from transporting these munitions now, correct?

Dr. PROCIV. We have the ability now to at least study transportation as a cost reduction initiative. We are not pursuing actual transportation as an option right now, but there was a time where we could not even study the option. We can study it now as a measure.

General ORTON. The law is still in place.

Senator STEVENS. I cannot hear you, General. You will have to come up to that microphone.

General ORTON. The law is still in place that says we may not transport the munitions from one site to another.

Dr. PROCIV. I am sorry, I was answering a different question.

General ORTON. We can talk about it, study it, and look at it now, which we could not do last year. But at this point in time, that law is in place.

Senator STEVENS. But if the position is we are not going to change the date of 2004 and we are coming up to these deadlines, I think you ought to also be studying what the alternatives are in terms of the program. Are any of these timeframes you have got here capable of being reduced?

That Kentucky timeframe is very short when you look at the time of actual processing if we do not change the date of 2004 as I understand it. Am I correct, Dr. Prociv?

Dr. PROCIV. For instance, at Pueblo if we experience the maximum delays we are very concerned we could go over 2004. We are hesitant to change the 2004 date because, again, of the risk perception. There may be a time when we have to come back and ask Congress to do that.

Senator STEVENS. I have got to tell you, politically I do not think you can change the 2004 date. I think that ought to be kept in mind.

Senator.

INCINERATION

Senator SHELBY. Thank you. Thank you, Mr. Chairman.

General Orton, I have got a number of questions for the record, but I would like to go through some of this first. Regarding the Army's alternative technology program for a moment, would you say that the Army is committed to actively pursuing alternatives as new technologies emerge if they do emerge? Or on the other hand, is the Army committed to the incineration program that you are now getting ready to start seeking permits for?

General ORTON. Let me phrase it this way, Senator Shelby. The Army is committed to the baseline program. That is the program that we currently have in place and are chartered to operate.

Senator SHELBY. And that is incineration, is that right?

General ORTON. That is basically incineration, yes, sir.

As a part of the overall program, we are committed to keeping an openness to new ideas that may bring us ways to alternatively process these things that might be safer or as safe and more efficient or something of that sort. The key element of that currently going on is the study that has been discussed back and forth with Dr. Magee. That is focused on the bulk sites only, because we can focus in on the bulk site and make a comparison between that agent in an alternative technology or in an incineration mode.

Senator SHELBY. But the one at Anniston, you have multiple problems there.

General ORTON. Yes, sir; a complex stockpile.

Senator SHELBY. A very complex stockpile, as opposed to just a bulk stockpile.

General ORTON. Yes, sir; very much so.

Senator SHELBY. So the study that Dr. Magee's group, the National Research Council, is doing, would that have any impact at all one way or the other on what is going on at Anniston?

General ORTON. I do not believe it will. It depends on what the information is.

Senator SHELBY. So the bottom line is that the Army is committed to the incineration program?

General ORTON. They are committed to the incineration program as part of the baseline for Anniston, for Tooele.

Senator SHELBY. And does the amount of money or funding reflect that? In other words, I understand there is $931 million included in military construction, of which approximately $13 million is for alternatives. Is that about right? Are those numbers right?

General ORTON. The first one is.

Dr. MAGEE. $16 million.

General ORTON. $16 million.

NRC REPORT

Senator SHELBY. Dr. Magee, the National Research Council is evaluating three alternatives to the baseline, in addition to the Army's neutralization program. As Senator Stevens was questioning you earlier, you are going to submit that report in August. That is your plan anyway, is it not?

Dr. MAGEE. That is correct, Senator.

Senator SHELBY. And that is being reviewed among your peers right now?

Dr. MAGEE. Our goal is to have it out for peer review in the middle of this month.

Senator SHELBY. What is the basic scope of your review here?

Dr. MAGEE. The basic scope of our review or our task?

Senator SHELBY. Yes; that is right, your task. What are you trying to do here?

Dr. MAGEE. As I tried to lay out in my testimony, Senator, the idea is we are trying to assess the technical feasibility, the engineering maturity, the robustness, the strengths and weaknesses of each of the five technologies under review. We are also trying to ascertain the concerns and the input of the public at these sites. We have already seen that they have some very strong views as to what they would like to see in a technology.

We are also interested in knowing what, if any, regulatory or permitting problems, because, as you can see in a lot of these delays, the permitting requirements are there.

So it is basically a technology assessment, a permitting requirement, and concerns that the citizens advisory commissions and public have pro and con regarding these technologies.

Senator SHELBY. General Orton, why did we limit or why did you limit the evaluation to mustard and VX agent at the bulk sites and not include the munitions sites like Anniston?

General ORTON. As Dr. Magee has alluded to, we are in a process of evaluating what a technology can do. We need to isolate and focus.

Senator SHELBY. But you are focusing now on the bulk site, are you not?

General ORTON. On the bulk site, to give us the first level of comparison.

Senator SHELBY. Well, could you not have given the company some GB nerve agent and at least determine whether they could successfully destroy it? In other words, could we not have killed three birds with one stone?

General ORTON. It would have extended the process even longer and caused greater delay.

Senator SHELBY. It would be a more complete process, would it not?

General ORTON. It would be, but we also have data concerning GB's processes dating back to the 1970's in our prior experience. That would need to be updated.

Senator SHELBY. But is not the nerve agent issue a big issue in the chemical field, Dr. Magee?

Dr. MAGEE. Yes; it is. But let me just add one thought, because I think there is an important point that is not being addressed here. We will make our report in August. The Army is doing an independent evaluation. The Defense Acquisition Board will make a decision in October.

It will take, by our estimates—and by the Army's estimates maybe even longer. I would estimate 3 to 5 years before that technology will be permitted, a feasibility will be constructed and undergo systemization, and be deemed as to whether it is, in fact, adequate to destroy the agent at those two sites.

So when you say the issue has come back, could you not have done other things as well, if we are not going to have an answer regarding whether or not we have another tool in our toolbox for 3 to 5 years, the question becomes, looking at the schedule that you see behind you up there, that raises some challenges on how you would look at other, say for example GB integration, for example, into a facility such as Anniston.

I am not saying it cannot be done, but I think one of the concerns was those two sites had adequate time because they were the last on the horizon, so to speak, to be prime candidates. Now, if that process is accelerated and somehow everything goes well and permits do not take 2 years, but take 6 months, and construction and systemization goes well, yeah, we might have an answer in an earlier period of time.

That is why the academy committee in its earlier report said that as those technologies are validated and we have proven them—remember, we have been working 6 years or the Army has been working 6 years to prove and develop the technology at Johnston Atoll. When it is ready, then I think the question is made, does it have another role?

But I think this timing is very important.

Senator SHELBY. So when we talk about the year 2004, that is what is driving all of this, is it not?

Dr. MAGEE. No.

Senator SHELBY. Driving part of it, maybe?

Dr. MAGEE. I would say that you pick any year you want if you really believe what I have said before and what all the studies, storage risk is at least one order of magnitude.

Senator SHELBY. 10 to 1.

Dr. MAGEE. You cannot come up—dates do not mean anything, as far as I am concerned. What drives the system in my mind is getting the job done. You said, you know, how are you going to convince the people in Anniston. The answer is when it is all gone then they are all going to have probably a parade downtown, because then there will be no worry. But as long as it sits there——

Senator SHELBY. Well, I pray that day will come when they could have that parade. But in the meantime before we get to that parade, there are a lot of questions.

Dr. MAGEE. Sure.

General ORTON. Senator, if I may add to my prior answer slightly.

Senator SHELBY. Sure, General.

GB SAMPLING

General ORTON. The issue of GB. GB sampling has been offered to the contractors who are participating in the process free of charge, because they did raise questions and, since they are not under contract, they raised that issue as a possibility for other markets for their business. So that has been offered. They have not chosen to do anything with it.

PILOT STUDY

Senator SHELBY. General, if one of the alternatives that comes along satisfies your requirements, I mean the Army's requirements, will you, general, issue a request for proposals to begin a pilot test? If there is a recommendation on an alternative that the National Research Council would recommend that you consider, would you begin a pilot test?

General ORTON. The process that we are going through here will lead us to a recommendation to a high-level defense review board, Defense Acquisition Board, and the decision will be made at that time whether or not to go forward with piloting.

Senator SHELBY. You will do what comes out of that recommendation, in other words?

Senator STEVENS. General, I cannot hear your answer. Would you pull that mike up, please. What was your answer to that.

General ORTON. I have got to go back to where the question was and see.

Senator SHELBY. I said would you go with a pilot study——

General ORTON. Yes.

Senator SHELBY [continuing]. If the Defense Board recommended it.

General ORTON. Yes; Mr. Chairman, what I indicated was, as part of this process we are to come up with, evaluate what the NRC offers up, and then take that to a decision review at the highest level of the Department of Defense as to whether we go forward with one, two of the alternative technologies to the private stage.

In other words, they are in bench stage now. They are in test tubes and small scale operation. Whether we would take that up to pilot planning or not and fund accordingly to do that is a decision we will make with the Department of Defense in October.

Senator SHELBY. OK.

PREPARED STATEMENT OF M4 ENVIRONMENTAL MANAGEMENT, INC.

Mr. Chairman, I know you have indulged me well and I thank you. I have a statement, Mr. Chairman, that I would like, on the alternatives, that I would ask that it be included in the record.

Senator STEVENS. Yes.

[The statement follows:]

PREPARED STATEMENT OF M4 ENVIRONMENTAL MANAGEMENT, INC.

Mr. Chairman and Members of the Subcommittee: M4 Environmental Management Inc. (M4) appreciates the opportunity to submit a written statement on the importance of the U.S. Army's Alternative Technologies and Approaches Project for chemical demilitarization. As explained below, this program is essential to the success of the United States chemical demilitarization efforts and we urge the Subcommittee's support for this endeavor.

M4 is a 50/50 limited partnership formed in August 1994 between Lockheed Martin Corporation and Molten Metal Technology, Inc. As a team, we bring experience and commitment to mission success in major government programs from Lockheed Martin and scientific and technical depth from both Molten Metal and Lockheed Martin. M4 is using innovative technology to help our customers solve troubling environmental problems in areas where solutions have evaded them for years. Certainly, assisting in the safe destruction of the nation's stockpile of chemical weapons is a major priority for us and one of the reasons we formed our company. We are prepared to work with the Army on a solution to chemical demilitarization that combines a unique technology with a privation approach that is based on regulatory and public acceptance.

The technology we have chosen for chemical demilitarization is called Catalytic Extraction Processing, or CEP, a proprietary recycling technology developed and commercialized by Molten Metal. CEP uses chemistry to recycle waste into useful raw materials, eliminating disposal problems and reducing cost. It is safe in both design and process, completely destroying wastes within a fraction of a second without producing harmful emissions or secondary wastes. Processing occurs in a sealed environment in which chemical reactions can be monitored and controlled. CEP is a non-combustion process that operates under conditions that prevent the formation of dioxins, furans or other hazardous products typical of combustion technologies.

Because CEP produces virtually no waste requiring further treatment or disposal and because materials are recovered for reuse, CEP is regarded favorably by state and federal regulatory agencies. In fact, the U.S. Environmental Protection Agency recently designated CEP as a non-combustion alternative to incineration and as a best demonstrated available technology (BDAT) for all hazardous wastes for which incineration had been the only approved processing method. In addition, CEP has been approved as a hazardous waste recycling technology in Massachusetts, Ohio, Tennessee and Texas. It has also been accepted into California's Technology Certification Program, which is limited to non-incineration technologies.

In the last 5 years, approximately 20,000 hours of operational testing have been performed and over $250 million of private sector funds have been invested in developing, deploying and operating CEP units. A variety of difficult waste streams have been processed successfully, including hazardous waste, low-level radioactive waste and chemical agent. Throughout the development and commercialization of CEP, Molten Metal has sought out and fostered alliances with companies that have specialized technological and engineering expertise, such as Martin Marietta, Fluor Daniel, Westinghouse and Du Pont, to assist in successful technology deployment.

Deployment has been swift. In the last 12 months, M4 and Molten Metal have designed, constructed and started up multi-million dollar, state-of-the-art facilities for radioactive waste, including a remotely-operated plant for Westinghouse which processes ion exchange resins from the nuclear power industry. M4 currently has CEP units processing depleted uranium hexafluoride and mixed radioactive and hazardous waste. This summer, M4 will commission its large, commercial-scale facility for processing mixed waste, having moved from design inception to operation in less than one year. In addition, Molten Metal is deploying CEP for industrial and chemical wastes for a number of customers, including Hoechst Celanese in Texas and Mexico. All CEP facilities are fully licensed and permitted to meet health and safety requirements under stringent state and nuclear industry regulations and standards.

M4 has proven that CEP works exceptionally well in destroying the Army's mustard and nerve agents, the two types of agent stored in bulk at Aberdeen, Maryland and Newport, Indiana. In testing at an independent, third-party surety lab this past March, using state-of-the-art analytical techniques, CEP completely destroyed all detectable traces of the agent processed. Our tests achieved greater than or equal to 99.999999 percent ("eight nines") destruction, which is 100 times better than current regulatory standards designed to protect human health and the environment. Based on this performance and CEP's other advantages, a major Japanese company has signed a Memorandum of Agreement with M4 to use CEP as the principal method for the destruction of bulk chemical agents on the Chinese Chemical Weapon Demilitarization Project.

With our development and deployment track record and the total commitment of Lockheed Martin and Molten Metal, we are confident we can succeed in the chemical demilitarization program. We have assembled a strong project team that includes Bechtel, Fluor Daniel and Battelle and uses current, Army-proven designs for agent removal, handling and monitoring. Minimal design and construction changes would be necessary to retrofit the Army's current design with CEP. As a result, we estimate that we could be processing agent safely within 18 months of a contract award and could complete the work at both Aberdeen and Newport for substantially less than the cost of the baseline approach and before the congressionally-mandated deadline of 2004.

In addition to the agent, CEP can process the ton storage containers and the gelled residues that cannot be drained from the containers. The transportable CEP units would be decontaminated, disassembled and moved off-site after operations are complete. In our view, M4's approach addresses citizen and regulatory concerns about public health and safety, protection of the environment, minimization of secondary waste and use of a system that can be quickly and economically dismantled and removed.

The U.S. Department of Energy (DOE) has independently supported our assessment of CEP's cost advantages. The Office of Science and Technology within the DOE's Environmental Management Program recently completed an extensive systems evaluation of thermal and non-thermal technologies capable of treating DOE's mixed hazardous and radioactive wastes. The evaluation identified major technology differences in terms of effluent generation, life-cycle costs, technology gaps and research and development needs. Comparisons were made of each technology's economics, maturity, safety, public acceptance, permitting requirements and final waste forms. Technologies evaluated ranged from rotary kiln incinerators and chemical wet oxidation to plasma furnaces. DOE determined that metal melters, the technology category that includes CEP, had the lowest life-cycle costs of all the technologies examined.

As the members of the Subcommittee are well aware, the safe elimination of the United States stockpile of chemical weapons is a major challenge. M4 has great respect for the technical and political complexities, and for the effort so many people in the Department of Defense, the Army, the States, the communities and the contractor organizations have devoted to this challenge. In our view, our citizens should benefit from the very best our country with all its resources, talent and ingenuity can offer to solve this difficult problem. The government should not limit its options to those that existed 20 years ago or to those developed within its own laboratories. One of our country's great strengths is the rapid pace of its technology growth. We believe that broadening the technology horizon in the chemical demilitarization program via private sector involvement is essential for its success.

M4 is dedicated to playing an integral role in the safe and effective destruction of the chemical weapons stockpile and has followed through on this mission by committing substantial resources to the effort. Early last year, we proposed a privatization approach to the Army to process the chemical agent stored at Aberdeen, Maryland. Under this approach, M4 would build the plant using its own capital to meet processing criteria established by the Army and would operate within all safety, regulatory and programmatic requirements. Payment would be based on quantities of waste processed under a pre-determined, fixed-price arrangement. If M4 failed to meet the specified criteria, there would be no cost to the government. Thus, M4 would assume financial and technical risks usually taken by the government but would have the opportunity to earn a commensurate return. Our willingness to make such an offer demonstrates the confidence we and our parent companies have in our technology and personnel. While we are familiar with and would, of course, understand a more traditional contracting and procurement approach, we continue to advocate privatization for the chemical demilitarization cleanup.

The Army has initiated an assessment process involving multiple review organizations to evaluate alternative technologies that we are supporting but that continues to evolve. In the six months since M4 was selected for review, we have spent $3 million, supplied the National Research Council (NRC) and the Army's multiple review groups with over 1,000 pages of detailed material, as well as a 650 page conceptual design report, responded in writing to over 300 technical questions, met with NRC and Army panel members to discuss our process thoroughly over a dozen times, built a CEP unit in an independent, third-party surety lab and run 18 live agent tests, and participated in numerous stakeholder forums from Oregon to Maryland. The Army has not yet indicated the full scope and purpose of these reviews and associated follow-on plans.

The NRC has made a number of comments on the Army's assessment criteria that we endorse, from providing a side-by-side comparison with the baseline to minimizing the subjective nature and the bias of the evaluators. Experience tells us that the best answers flow from an evaluation that operates in the bright light of the day. M4 has functioned in that manner since its inception—with customers, regulators and community and special interest groups and throughout this review period with the Army, the DOD and the NRC.

We believe the citizens would benefit greatly from an open, peer-reviewed process for the entire chemical demilitarization program and we advocate such an approach. The technologies that best demonstrate the ability to process chemical agent safely and that are best equipped to transition to full-scale production quickly on both agent and other stockpile problems are the ones the country should use. This effort can be enhanced by selecting one or more technologies for an initial deployment phase and ensuring that funds for that phase are available.

M4 brings a credible alternative approach to the chemical demilitarization program. Our technology, CEP, is in commercial operation. EPA and a number of state regulators have recognized CEP as a non-combustion, BDAT alternative to incineration. The life-cycle cost advantages of using CEP have been independently documented. Finally, our privatization approach to contracting will shift financial and technical risks traditionally borne by the government to the private sector and will expedite progress.

The chemical demilitarization program is at a critical crossroads. We recognize both the need to reduce the risk of indefinite storage and the numerous challenges the baseline approach faces. We firmly believe in what we are doing and are serious about it—that is our corporate heritage—we would not have expended such effort if we were not committed for the long term. Our vision is to be able to look back in 5 to 10 years and say M4 Environmental and its CEP technology have helped the United States government overcome one of its toughest environmental challenges.

Senator STEVENS. Let me say, we have questions from Senators Campbell, Bumpers, and Mikulski that will be submitted to one or more of you gentlemen. We would appreciate it if you would respond to it.

Senator Bennett, do you or Senator McConnell have further questions? Senator McConnell.

Senator MCCONNELL. No, Mr. Chairman, I am fine.

Senator STEVENS. Senator Inouye?

Senator INOUYE. Can I ask a question, not related to——

Senator STEVENS. May I just ask this, that I be excused. I have got an appointment over at the leader's office at noon. Would you close this hearing?

Senator INOUYE. Sure.

Senator STEVENS. Thank you.

Senator INOUYE [presiding]. General Orton, at the present time contractor employees will be sent home, a free trip, once every 6 months. There is no funding for Government employees, though. How does this affect the morale?

General ORTON. It does not do it any good.

Senator INOUYE. We let the contract employees go home every 6 months, but Government employees do not have that privilege because there is no budget request here. Would the Army be opposed to it?

General ORTON. Senator, let me look into that and get an answer back to you for that. I am not aware of the rules as they apply to Government employees and how they apply to contractor employees as of this time. In a prior life I was deeply involved with that issue when I commanded Johnston Island, and I thought we had that resolved.

Senator INOUYE. I would appreciate your looking into it.

[The information follows:]

LETTER FROM ROBERT D. ORTON

DEPARTMENT OF THE ARMY,
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION,
Aberdeen Proving Ground, Maryland, July 25, 1996.

Honorable DANIEL K. INOUYE,
Defense Subcommittee, Committee on Appropriation, United States Senate, Washington, DC 20510.

DEAR SENATOR INOUYE: During the hearing on June 4, 1996, you expressed some concerns about the Off-Island Leave Program. The following information is provided for your edification.

Public Law 102–27 authorized the Inouye Off-Island Leave Program. Active duty military and Federal civilian employees, who are assigned to Johnston Atoll for at least one year, are recognized for their hard work and personal sacrifice through this program. These funds have been a benefit and morale booster for approximately 300 military and civilian personnel assigned to the U.S. Army Chemical Activity, Pacific; Field Command Defense Nuclear Agency—Johnston Atoll; U.S. Fish and Wildlife; Army and Air Force Exchange Service, Pacific Division; and the Program Manager for Chemical Demilitarization Field Office.

Funds in the amount of $2,000,000 were released by Assistant Secretary of Defense, April 1991, as a no year (continuing) appropriation. This program has an indefinite period of availability for obligation and disbursement. Funds were fully obligated in fiscal year 1991 and cumulative disbursements totaled $1,203,348 as of May 31, 1996.

An investigation resolved a delay in disbursements and missing vouchers totalling $438,000. Based on our review and spending trends, the current funds will be utilized in fiscal year 1997. Additional funds in the amount of $1,000,000 will be required under Budget Activity 5 of the Chemical Agents and Munitions Destruction, Defense appropriation to fund this program through First Quarter, fiscal year 2000.

Sincerely,

ROBERT D. ORTON,
Major General, U.S. Army, Program Manager for Chemical Demilitarization.

ADDITIONAL COMMITTEE QUESTIONS

Senator INOUYE. The questions that Senator Stevens alluded to earlier will be included in the record at this point.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO MAJ. GEN. ROBERT ORTON

QUESTIONS SUBMITTED BY SENATOR BEN NIGHTHORSE CAMPBELL

CHEMICAL DEMILITARIZATION PROGRAM

Question. General Orton, can you tell us why, if there is such a great risk of instability of the chemical weapons stockpile, hasn't more been done to stabilize these weapons? I know you have had countless delays—I think it takes 6 to 8 years to just get the permit—and in light of the fact that these will probably continue, can you comment on the Army's efforts to stabilize these weapons?

Answer. The Army has taken steps to attempt to minimize risk. This risk will continue as long as the hazardous material exists and as long as it is possible for external events to occur. Care must be taken to ensure that more risk is not introduced through the extra handling and movement of the munitions than is reduced by whatever change is being implemented. The Army has implemented a reconfiguration program which removes propellant from cartridges. The Army has also been replacing plugs in ton containers to reduce the likelihood of accidental release. A series of other initiatives are also underway, to include:

—A comprehensive study to determine if there are destabilizing effects of agent on rocket propellant that could lead to self-ignition.

—Continuation of the Master Sample Program, which maintains samples of each M55 rocket propellant lot for periodic assessment of stabilizer levels.

—Development of a statistical sampling plan for field sampling of M55 rocket propellant.

—Analytical study of the effects of agent on energetic components (fuses and bursters) in the M55 rocket.

—Determination of the storage life of the M55 rocket based on the laboratory data being acquired.

—Development of a contingency action plan for M55 rockets to be employed in the event of any instability that might be determined for specific M55 lots.

—Evaluation of the mustard ton container valve and plug integrity (degree of corrosion); evaluation of the M55 rocket intrusive inspection methodology to determine adequacy and integrity of the data; design and development of mustard ton container pressure test equipment.

—Development of instrumentation to assess the adequacy of lightning protection in chemical munitions igloos.

Question. How much R&D money does the Army spend on weapons stabilization?

Answer. The Army does not have a specifically defined R&D program devoted to chemical weapons stabilization. In the past, the Army has funded and carried out a number of significant efforts which were designed to determine the stability, or the potential for instability, of all of the munitions in the chemical stockpile. These efforts included dismantling a limited number of M55 chemical rockets, which have had the greatest propensity for leaking, to determine the degree of degradation or corrosion, and any increased sensitivity of the explosive components, including the rocket motor propellant. Although some corrosion has been found, and a small loss of stabilizer has occurred, the rockets have been deemed safe for continued storage for the time being. Other munitions, which are less likely to leak than the M55 rocket, are also inspected regularly for signs of instability. Also, the Army currently has an Enhanced Stockpile Surveillance Program (ESSP) which was funded $4.5 million in fiscal year 1995 and $2 million in fiscal year 1996. This program is designed to provide essential information about the physical and chemical integrity of the stockpile. The ESSP is currently focused on these major efforts: safe storage life of the M55 rocket; the effect of nerve agents GB and VX on the stabilizer constituent in the rocket propellant; and the structural integrity of the mustard agent bulk ton containers.

The Army's Chemical and Biological Defense Command has, through many years of research and development, fielded a number of highly sensitive, extremely accurate and precise instruments for detecting lethal chemical agents. These instruments are now deployed at all of the chemical storage installations and are utilized to detect leaks in the storage igloos and individual M55 rockets. These instruments detect the presence of agents down to less than one part per billion. Any leaking munitions that are detected with these sensitive instruments are over packed in hermetically sealed steel containers and placed in isolated storage facilities. The stockpile in storage continues to represent the greatest risk to the public, our employees and the environment. This situation worsens over time.

Question. Can you estimate how much would it cost to dismantle and store these weapons?

Answer. We cannot reliably answer this question as certain components of the stockpile are not built to allow for dismantlement. In order to dismantle both M55 rockets and M23 land mines, an entirely new process would have to be designed, tested, and verified through operational verification testing prior to its employment. The complexities in coming up with a "reverse assembly" approach for these items were a driving factor in deriving the current process, which punches and drains most of the agent and then either cuts or punches the item for processing in an incinerator. If these items were to be stored, a mechanism for resealing the items, for reliably decontaminating them, or for otherwise encasing them would also have to be developed. Adequate storage space for the new wastes would also have to be obtained (through new construction combined with modifications to existing structures). Finally, we should note that such an approach would not reduce risk to the public nor the environment unless the source of that risk—the chemical agent itself—was somehow treated prior to placing it back into storage. Increased risk to our employees would also result from the additional handling required.

Question. General Orton, can you or your staff comment on the work currently being done on mustard as far as alternative technologies are concerned?

Answer. The Army Alternative Technologies Program (ATP) is currently evaluating the viability of a neutralization followed by biodegradation process and three other technologies developed by commercial vendors (see below). The National Research Council, Army Materiel Systems Analysis Agency, and the Product Manager assessments of these technologies are ongoing and scheduled for completion to support a Department of Defense decision review in Fall 1996 on whether to pilot an alternative technology at Aberdeen Proving Ground, Maryland. The following describes the processes of the alternative technologies under consideration:

Neutralization Followed by Biodegradation (U.S. Army Research, Development and Engineering Center).—Neutralization is accomplished by hydrolysis reaction of the chemical mustard agent HD with hot water to create a biodegradable product. The resulting solution is then fed into a reactor and mixed with biomass. Microorganisms in the biomass break down the neutralized substance, producing waste products of primarily additional biomass, liquid, and gases, principally CO_2.

Electrochemical Oxidation (AEA Technologies).—In this process, agent is introduced into a continuous batch reactor using an electrochemical cell of nitric acid and silver to attack the agent, resulting in oxidized species. This technology uses recovery operations to recycle process chemicals, thus leaving a liquid waste stream.

High Temperature Gas Phase Reduction (ECO LOGIC).—In this process, steam and hydrogen reduce carbon bonds and the excess hydrogen bonds with the atoms from the agent, thereby destroying the agent. This basic process is widely used in commercial oil refinement processes to reshape hydrocarbon chains into useful products.

Molten Metal Catalytic Extraction Process (M4 Environmental).—This process is based on the high temperature pyrolysis of both organic and inorganic elements. After the chemical agent is broken down into its elemental constituents, the molecules are catalytically re-formed in the molten metal reactor.

Question. Does the Army have any plans to look into alternative technologies at the non-bulk sites?

Answer. The Department of Defense (DOD) is committed to implementing the lowest-risk disposal alternative at each site. At the current time, the only demonstrated technology for disposing of the chemical agents, for adequately cleaning metal parts, and for disposing of energetic material is the baseline process of separation followed by direct incineration. The Army is actively remaining cognizant of developments in the industrial sector and has an active R&D program into agent destruction technologies for agents HD and VX. The Army will continue to assess technological developments as it moves forward to dispose of the stockpile. We would be remiss if we did not reinforce, however, that the DOD is pursuing a "minimization of cumulative risk" strategy—that means, the DOD is implementing approaches that result in the lowest achievable overall risk. Risk contributors include disposal, handling, and continued storage. It should also be noted that while the alternative technologies selected for the Army Alternative Technology Program were assessed as being the furthest along in their development, there is still significant effort required to fully mature any of these technologies prior to full scale processing implementation.

Question. What will it take to get the Army to look into these alternative technologies for the non-bulk sites such as Pueblo? I understand that the technology is not currently available to attack this problem, but I want to know what it will take to give us this capability.

Answer. Pueblo poses several unique challenges to implementation of alternative technologies to replace each of the incinerator types which are part of the baseline design. A method for disposing of energetic material must be derived, and that method must accommodate the possibility that the material has become contaminated with agent. Also, a method for cleaning the projectile bodies and other metal components must be developed.

As discussed as part of the previous question and answer, the Department of Defense (DOD) is committed to pursuing the lowest cumulative risk disposal configuration at each site. If information becomes available that indicates that a lower cumulative risk could be obtained through alternative technology use, then that alternative would be pursued. There is no information available today to indicate that this is, in fact, the case. However, the DOD will continue to remain abreast of developments to ensure that the maximum protection package is being implemented at Pueblo and at all sites. It should be noted that, this is not a situation that can be resolved with added dollar investment alone. A science and/or engineering advancement will be needed to permit us to maintain the maximum safety dictum while employing a method that is less tested and more time consuming than the baseline technology and perhaps increases employee risk.

Question. Can you provide us with a bottom line figure on the entire cost lawsuits included, for the entire project?

Answer. The Chemical Stockpile Disposal Project is estimated to cost approximately $12.4 billion. Costs to date for the lawsuit litigation support are approximately $236,000.

Question. Can you give us the final cost of Johnston Atoll?

Answer. The life-cycle cost for the Johnston Atoll Chemical Agent Disposal System, or JACADS, is estimated at approximately $1.4 billion.

Question. What do you have in terms of cost of implementing alternative technologies for those selected sites?

Answer. Life cycle cost estimates have been prepared by the Product Manager for Alternative Technologies and Approaches for neutralization and neutralization followed by biodegradation technologies. Each commercial vendor supplied a life-cycle cost estimate as part of the information that Army Materiel Systems Analysis Agency and the Product Manager for Alternative Technologies and Approaches are using in their evaluations. A better view of costs will develop as we move into the Department of Defense decision review process planned for Fall 1996 to determine which alternative technology, if any, will proceed to pilot testing.

QUESTIONS SUBMITTED BY SENATOR BARBARA A. MIKULSKI

CHEMICAL WEAPONS DEMILITARIZATION

Question. I am pleased that the Army is now seriously considering the use of alternative technologies at bulk storage sites. Do you believe that the use of alternative technology is feasible at Aberdeen Proving Ground?

Answer. Alternative technologies are currently under evaluation to determine their potential viability to demilitarize the mustard agent HD stored in one-ton containers at Aberdeen Proving Ground. The review and analysis by the National Research Council, Army Materiel Systems Analysis Agency, and the Product Manager is in process. The Department of Defense decision review to determine whether or not to conduct pilot testing of an alternative technology at Aberdeen Proving Ground is scheduled for the Fall of 1996.

Question. Do you believe we could meet the deadline for disposal of Mustard at Aberdeen using an alternative means?

Answer. The current approach, which calls for the design and construction of a full-scale facility for Aberdeen Proving Ground, with pilot testing to be done on a single process line of the multiple process line full-scale facility, meets the December 2004 deadline. Each commercial vendor also supplied a projected schedule which meets the December 2004 deadline. The National Research Council, Army Materiel Systems Analysis Agency, and the Product Manager will be assessing whether the schedules are realistically achievable.

Question. Public Laws 99–145 and 102–484 require that alternative technologies be "significantly safer" than baseline technologies. Please describe how you interpret what it means for a technology to be "significantly safer."

Answer. The National Research Council reviewed the Army's assessment criteria for selecting an alternative technology. In its 1995 report, the National Research Council concluded:

"An alternative technology that permits early detoxification of agent at a stockpile site may be significantly safer than the baseline system and may meet other Public Law requirements by reducing storage risk and costs."

In addition, MITRETEK Corporation performed a Preliminary Risk Assessment of the alternative technology options by developing failure modes and effect analyses for each technology. Few serious safety risks were identified for any option and none were identified that cannot be mitigated to acceptable levels through design modification. Therefore, safety issues relate primarily to potential schedule impacts of safety related design modifications.

It should be noted that the "significantly safer" provision applies only to the mandatory use of a particular alternative. The Department of Defense may elect to use alternatives which are equivalently safe if other advantages are projected.

Question. What will be the role of Citizens Advisory Commissions in determining whether alternative technologies are used to neutralize Mustard Agent at the Aberdeen Proving Ground?

Answer. Specific Maryland Citizens Advisory Commission involvement in the decision-making process includes:

Input to the development of the Alternative Technology Program's draft Assessment Criteria document through the Army's solicitation of review comments in late 1994. These comments were addressed in the second Assessment Criteria, which was evaluated by the National Research Council in 1995.

Quarterly status update meetings have been held between the Army and the Maryland Citizens Advisory Commission since the inception of the program. Citizens Advisory Commissions' feedback has had direct impact on the Alternative Technology Program development. An example illustrating this point is the fact that neutralization followed by biodegradation has shifted from a water recycle design to a wastewater discharge alternative involving either a Federally Owned Treatment Works or a Public Owned Treatment Works. This modification came as a direct result of input received from the Maryland Citizens Advisory Commission.

The National Research Council continues to solicit input from the Maryland Citizens Advisory Commission and the public as part of their assessment of the alternative technologies.

Review and comment on the decision documents that will be used by Product Manager Alternative Technologies and Approaches to develop a recommendation to the Program Manager and Department of Defense. Specifically the Citizens Advisory Commission will be provided a copy of the MITRETEK risk assessment report; Army Materiel Systems Analysis Agency's evaluation of the baseline technology vs. alternative technologies; the National Research Council's assessment; and the Product Manager's assessment of alternative technologies.

Meeting with Program Manager to review concerns and discuss issues surrounding the selection of a chemical demilitarization technology at Aberdeen Proving Ground prior to a recommendation to the Department of the Army Systems Acquisition Review Council.

All of these efforts are designed to maintain two-way communication between the Maryland Citizens Advisory Commission and the Army, and to ensure the Citizens Advisory Commission concerns are taken into account before a chemical stockpile disposal decision is made at Aberdeen.

Question. Please describe what assistance the Chemical Stockpile Emergency Preparedness Project has provided to Harford County, Maryland and what assistance will it provide in the future?

Answer. Total Chemical Stockpile Emergency Preparedness Project (CSEPP) funding provided Harford County since the beginning of the program in 1988, has been approximately $10.7 million. Major emergency enhancements included in this amount are:

	In millions
Emergency Operation Center Renovation	$2.3
Evacuation Route Enhancements	2.9
Siren Alerting System	1.2
Automated Data Processing System	0.25
Personnel, Communications, Over Pressurization of Emergency Shelters, etc	4.05

This $10.7 million budget for Harford County was part of a total of $19.4 million provided the State of Maryland and it's involved CSEPP counties. In addition to the systems discussed above, the State of Maryland was provided CSEPP funds to purchase some items (e.g., personal protective equipment and decontamination equipment) for Harford County.

Subject to future year federal appropriations and decisions of the Maryland Integrated Process Team (including State, county, and Army representatives) sustainment funds for the Maryland program will be provided until the elimination of the Aberdeen stockpile. Current projected fixture funding for Harford County is estimated at approximately $2 million.

In addition to funds, CSEPP has provided, and will continue to provide, Harford County with Federally evaluated annual exercises, training, and planning expertise to assist in enhancing its chemical emergency preparedness.

QUESTIONS SUBMITTED TO DR. HAROLD P. SMITH, JR.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

Question. The Segmented Gate System (SGS) in use in Johnston Atoll has attained a higher volume reduction (greater than 90 percent) on a larger volume of soil (100,000 tons) than any other DOD or DOE radiological cleanup project. The cleanup at Johnston Atoll is about half completed. DNA requires $22 million over 7 years to finish the job.

For $8 million this year, DNA can continue the SGS processing and begin waste concentrate shipments to NTS. Since it is imperative that the cleanup of Johnston Atoll continue unabated as it is the only on-going radiological cleanup of any significant size that incorporates a volume reduction process, do you support continuation of this effort?

Answer. I strongly support continuation of this project. Although funding through the Defense Environmental Restoration Account (DERA) has been committed for this effort, the provision of an additional $8 million would enable the Defense Special Weapons Agency (DSWA) (formerly DNA) to continue site characterization and waste volume reduction using SGS and accelerate the shipment of low level radioactive waste to the Nevada Test Site in fiscal year 1997. This additional funding also could enable DSWA to seek a follow-on contract employing additional processing systems which could further reduce waste volume, resulting in reduced shipping and disposal costs. I remain committed to this project and believe that cleanup can be accomplished within the allotted timeframe.

Question. The Department of Energy operates the Nuclear Emergency Search Team (NEST) to evaluate and respond to possible nuclear emergencies. If there was a terrorist use of a chemical weapon, does the Department of Defense have any capability to respond? Do you have the team identified that would respond?

Answer. DOD has an emergency response capability to a chemical or biological incident. The DOD capability, however, is not organized or funded along the same lines as DOE's Emergency Response Program. The Federal Government has had in existence since the early 1980's extensive plans, procedures, and structure to respond to non-NBC terrorist incidents, either overseas or domestically. We have developed a very comprehensive crisis response mechanism to terrorist incidents which has worked extremely well. Over four years ago, the interagency counterterrorism community began an in-depth review of terrorist use of nuclear, chemical, and biological weapons. The initial effort focused on crisis management of such incidents. Approximately eighteen months ago, the interagency community increased emphasis in dealing with consequence management aspects of WMD terrorist attacks, including chemical and biological weapons. This second effort developed because it became increasingly clear that efforts in "crisis management" could swiftly transition into "consequence management." The result is a major improvement in the capability of the Federal Government to respond to terrorist use of WMD.

There has been a fundamental shift in the level of Federal Government involvement and decision-making authority during a WMD domestic terrorist incident. In previous years, the Department of Justice, through the FBI, led the federal response during crisis management. Decision-making authority was often delegated down to the FBI Senior Agent In-Charge on scene at the incident site. Because of the possibility of mass casualties, physical damage, and potential for civil disorder resulting from a WMD incident, it was determined that Federal decision-making authority must now reside in Washington. Decisions on such incidents will be coordinated between Washington, State, and local officials whenever possible.

Next, as a result of the Oklahoma City bombing, many federal agencies have raised the priority of improving their response capabilities, streamlined response procedures, and have ensured that senior leadership will be involved in any WMD incident. A good example of this is DOD's Secretary of Defense review of "Military Assistance to Civil Authorities" completed in December 1995. This review ensures that the Secretary of Defense personally oversees DOD responses to acts of terrorism, both domestic and overseas. The SECDEF will be assisted in response to domestic terrorist incident by both the Chairman of the Joint Chiefs of Staff, who will assist in managing the DOD operational response, and the Secretary of the Army, who is the Executive Agent for civil emergencies, and provides domestic civil assistance through the Army's Director of Military Support (DOMS).

Finally, the interagency community found that including consequence management experts at the very beginning of a crisis management response was absolutely essential for minimizing casualties, reducing public panic, and ensuring a rapid Federal response to State and local officials. The interagency counterterrorism community has also taken steps to include senior policy decision-makers for consequence management in their Washington deliberations on crisis management. Note, however, that many of the Federal teams cited for consequence management are also employed in crisis management.

More specific and detailed information concerning DOD response capabilities is contained in the "Joint Report to Congress, Preparedness and Response to a Nuclear, Radiological, Biological, or Chemical Terrorist Attack," which was forwarded to the Congress on June 13, 1996. In general, the following DOD Assets are available to respond to incidents:

Crisis Management DOD Assets

Subject Matter Experts who are highly trained, immunized, and very capable of operating in NBC environments.

Domestic Emergency Support Team (DEST) interagency team which provide technical advice:

—For both chemical and biological incidents—contains a tailored chemical and biological response team (Tech Escort Unit, the United States Army Medical Research Institute for Infectious Diseases, and the Public Health Service), which can collect and analyze samples.

Chemical/Biological response teams that travel and work with Subject Matter Experts:

—Technical Escort Unit, United States Army Medical Research Institute for Infectious Diseases, United States Army Medical Research Institute for Chemical Defense, Naval Medical Research Institute—identification, sampling, transporting and rendering safe or disposal of agents.

Consequent Management DOD Assets

Chemical Biological Response Deployed Team:

—The Public Health Service has established a Chemical/Biological Rapid Deployment Team, deployable from Washington, D.C., to any incident site. The team can consist of as many as 16 DOD personnel, trained in medical and technical aspects. Team members consist of following: USA Medical Research Institute for Infectious Diseases (1 doctor and 1 scientist); USA Medical Research Institute for Chemical Defense (2 doctors with chemical weapons expertise); Naval Medical Research Institute (2 doctors, bio identification experts); Edgewood Research, Development, and Engineering Center (2 chemical and weather personnel); and USA Technical Escort Unit (8 Hazardous Materiel/Explosive Ordnance Disposal personnel).

Army Chemical Battalions (can provide for decontamination/clean-up efforts).

United States Marine Corps 350 personnel consequence management unit. This unit can operate in a chemical or biological environment and is designed to clear and secure areas, provide medical support, and provide some limited decontamination capability.

Additional support which DOD can provide for consequence management:

—Rapid transport of technical personnel, specialized equipment and supplies
—Provision of limited quantities of NBC defense resources
—Expertise in threat evaluation, decontamination, agent identification and protective measures
—Evaluation of weapon delivery methods and their impact
—Assistance in conducting operational and medical planning
—Provisioning of special vaccines for some biological threat agents
—Evacuation and transport of decontaminated casualties to medical facilities
—Specialized research

—DOD medical facilities when civil facilities are overwhelmed.

Question. We held a conference last week on nuclear, biological, and chemical weapons proliferation and it was clear that this country is poorly prepared to respond to a chemical or biological incident. Would it be useful to train local emergency responders, firefighters, etc., to respond to the release of a chemical or biological agent?

Answer. Absolutely, it would be very beneficial to train our first responders to be able to recognize a chemical or biological incident and in the use of equipment and operational procedures to assist them in responding and reacting to the incident, thereby protecting themselves and reducing the impact of a terrorist chemical/biological attack. The Department is currently evaluating the CTR II, Nunn-Lugar amendment language which requires the DOD to develop a plan to train our first responders. We are in the process of planning to implement the requirement to train responders with DOD assets, including those outlined above.

Question. The DOD has sophisticated ways of evaluating the threatened use of a nuclear weapon. For example, they have a reference of everything ever published on nuclear weapons so they can evaluate whether someone really has a weapon or is simply reading from a Tom Clancy novel. Does the DOD have anything similar for chemical weapons?

Answer. The DOD Intelligence Community has accumulated numerous assessments and reports which contain information on the chemical weapons capability of numerous countries. These reports indicate assessments on a particular country's ability to develop and also weaponize chemical weapons. These reports assist the Department in analyzing whether potential enemy or "rogue" nations have the capability to produce and weaponize these weapons. Developing the same information for suspected terrorist groups is a harder task. In addition, having the capability to employ these weapons is one piece of the formula. Perhaps even more important, and certainly more difficult to predict and assess, is a nation's or terrorist group's intent to use these weapons. Predicting intent is a very difficult task for our analysts.

In addition, the Department of Defense maintains a Chemical and Biological Information and Analysis Center (CBIAC), which is a central repository for all reports, assessments, scientific studies, media articles and other related chemical/biological defense documents. This capability provides our Defense analysts a capability to research specific information on chemical weapons both from internal United States and international information sources.

The analogy between nuclear and chemical weapons is not correct. There are relatively few ways to design a nuclear weapon. For example, Plutonium and Uranium 235 are the only effective materials for building a nuclear device to detonate. In contrast, there are significant numbers of chemical compounds, including classical agents (e.g., nerve agents, vesicant agents, blood agents, or incapacitating agents) as well as chemicals not traditionally considered useful on the battlefield (e.g., chlorine or methyl isocyanate, the "Bhopal" chemical) but which have devastating effects if used by a terrorist against unprepared populations. Furthermore, many of these chemicals are available commercially with few effective means to prevent an individual or group from acquiring them. In addition, there are many means of disseminating chemical agents, including the use of bombs or spray canisters which may be concealed and used covertly.

Question. If the FBI receives a threat involving a chemical weapon, is there an established way for them to notify the DOD? If so, how would the DOD then respond?

Answer. The Department of Justice is the designated lead Federal agency for crisis management with the United States. It exercises authority through the FBI. The FBI functions as the on-scene manager for the U.S. Government and overall focal point for coordination of the Federal crisis response. Other Federal agencies provide expert guidance and/or assistance as requested by the FBI.

FEMA has been designated lead agency for the coordination of Federal assistance to state and local governments in responding to the consequences of a terrorist incident within the United States. FEMA coordinates consequence management operations in support of the state using authorities and procedures contained in the Federal Response Plan (FRP).

During the crisis management phase of a terrorist incident, the FBI will manage the Federal Response, supported by FEMA. The Attorney General, advised by the FBI, will decide whether and when to turn over to FEMA all or portions of the incident site for consequence management. Subsequent to such a turnover, FEMA will become the manager for the Federal response.

All other Federal agencies provide support to the FBI or FEMA, as required. In responding to a particular crisis, a Domestic Emergency Support Team (DEST) will be formed with representatives of supporting Federal agencies. The DEST operates under the direction and guidance of the FBI, assists in the coordination of response operations, and is integrated into the on-scene FBI command structure. The DEST provides expert advice to the FBI on-scene commander concerning the technical aspects of the incident, capabilities of agency assets, and considerations for their employment.

DOD Support

As a matter of policy, when DOD responds to acts of terrorism, the Secretary of Defense (SecDef) will personally oversee DOD support of the Federal response. The Chairman of the Joint Chiefs of Staff (CJCS) will assist the SecDef in managing military operations required to resolve the crisis, assisted by the Army's Director of Military Support (DOMS).

Concept of Operations. DOD supports the Federal response to a terrorist crisis through a standing Joint Special Operations Task Force (JSOTF) and the establishment of a Crisis Response Task Force (CRTF) to assist with both crisis and consequence management. DOD will provide technical, bomb disposal, security, and other support to Federal, state and local authorities. Such support will be provided by military and civilian DOD personnel who will not be armed and will not engage in law enforcement activities unless expressly and properly authorized by the President.

Following approval of the President, the SecDef will authorize the deployment of the JSOTF, approve courses of action for planning, and direct its operations through the CJCS.

The Commander-in-Chief, U.S. Atlantic Command, will control and direct consequence management support provided the CRTF and coordinate their activities with those of the JSOTF and other military forces operating within the area.

Question. I understand our efforts to work cooperatively with the Russians on a chemical weapons demilitarization facility have experienced considerable delays. When will that facility be operational, and is there anything we can do to hasten its operation?

Answer. A brief delay did occur but has been rectified with the signing of an Implementing Arrangement by MOD on July 10 and subsequently signed by DOD on July 17. The Implementing Arrangement outlines roles of both countries in the creation of the first pilot Chemical Weapons Destruction Facility (CWDF) at Shchuch'ye in the Kurgan Oblast.

With the signing of the Implementing Arrangement, work is underway to begin optimization of the Russian two-step chemical agent destruction process, finalize contract negotiations to begin the feasibility study for the site of the facility in Shchuch'ye, and finalize work leading to contract award by December 1996 for the design/construction of the pilot CWDF. The draft fiscal year 1996 program plan envisions completion of pilot CWDF construction in 2002 and full operation of this facility after systemization and operational validation by 2004.

For this project the House and the Senate have authorized $70.5 million and $74.5 million, respectively. The final fiscal year 1997 budget is currently in conference. Assistance is needed to ensure Congress authorizes and appropriates these requested funds with minimal restrictions in order to ensure sufficient funds are available to capitalize on recent progress and not slip activities further in the future.

SUBCOMMITTEE RECESS

Senator INOUYE. On behalf of the chairman, I would like to thank all of you for appearing before the subcommittee this morning. The subcommittee will stand in recess until tomorrow, Wednesday, June 5, at 10 a.m., and at that time the subcommittee will receive testimony on the Department of Defense's medical and health care programs.

Thank you very much.

General ORTON. Senator Inouye, we do have money in the budget for one trip a year.

[Whereupon, at 11:56 a.m., Tuesday, June 4, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, June 5.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

WEDNESDAY, JUNE 5, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:04 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Domenici, and Inouye.

DEPARTMENT OF DEFENSE

ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS

STATEMENT OF STEPHEN C. JOSEPH, M.D., M.P.H.

ACCOMPANIED BY:

- **LT. GEN. ALCIDE LANOUE, SURGEON GENERAL, U.S. ARMY**
- **ADM. STEPHEN TODD FISHER, DEPUTY CHIEF, BUREAU OF MEDICINE AND SURGERY, AND DEPUTY DIRECTOR, NAVAL MEDICINE**
- **LT. GEN. EDGAR R. ANDERSON, JR., SURGEON GENERAL, U.S. AIR FORCE**

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning. I am sorry to be slightly late. We were reviewing some of the problems of my State, which is suffering right now from some real early forest fires. It is unfortunate, but I do regret being late.

We are going to turn this morning to the Department of Defense health programs. The hearing will be conducted in two parts. First we'd like to hear from the Assistant Secretary of Defense for Health Affairs and the Surgeons General, followed by the Chiefs of the Service Nurse Corps, at the specific request of my good friend from Hawaii.

Let me begin by welcoming Dr. Joseph, Assistant Secretary of Defense for Health Affairs; Lt. Gen. Sid LaNoue, Surgeon General of the Army; Rear Adm. Todd Fisher, Deputy Surgeon General of the Navy; and Lieutenant General Anderson, Surgeon General of the Air Force.

This is the last time you will be with us, General LaNoue, I am told, and we do wish you the best as you step down. I have enjoyed working with you. This hearing comes at a time when the Department is in the middle of implementing TRICARE, its managed health care program. In the midst of the significant change there is now unfortunately uncertainty and anxiety about the future and how these changes will impact beneficiaries, active duty retirees, and family members.

Our committee has been committed to seeing that health care is properly funded. There are over 8 million military members and their families who depend upon the Department of Defense for health care, and these people depend on the Pentagon and Congress to come up with the proper resources to support the health care delivery system. I do not think we can fail them, and we will do our best to work with you gentlemen.

We have each of your statements that are going to be printed and made part of the record. Before I call on Dr. Joseph, I want to call on my good friend, the vice chairman, Senator Inouye.

Senator INOUYE. Thank you very much. I would like to join you in welcoming Dr. Joseph and the Surgeons General. I also want to congratulate Admiral Fisher for your promotion and for your designation as Deputy Surgeon General. As noted by the chairman, I would like to acknowledge with thanks the great contributions made by General LaNoue, who I believe is appearing before this committee for the last time. On behalf of all of us who have been working with you, we thank you very much for your assistance and the great success you have made of the Army Medical Corps.

As noted by the chairman, today we turn our attention to the future of our currently superb military force, and the important link between a quality volunteer force and an equally robust and quality health care system. Last year we observed our 50th anniversary of the end of World War II. The intervening years have brought many changes to our Nation, to our military, and to the expectations and missions of our medical departments.

For example, I recall that when I was a young man in the service in World War II, just about 5 percent of us were married with dependents. And today I note that about 60 percent of our military personnel are married. In fact, today there are more military family members than there are military service members; 50 years ago, family member health care was an exception. Today, family health care provides the basis of much of the military health care.

And over the past years as I have traveled throughout this land together with the chairman to visit many military installations, among the first questions that I am always asked are questions about health care, usually by members who are concerned about whether their family members will have adequate health care.

Today's voluntary military is demographically quite different from the past. You ask our service members why they decided to make a career in the military. I am certain you will find that health care has become one of the most important quality of life issues. And if you ask recruiters what benefits are most influential in convincing our young people to join and stay, they will also tell you that health care is important in attracting and retaining good volunteers.

So today as we address some of the many issues and concerns facing the military health services system, I would like to focus on military medical readiness, the provision of health care services to our beneficiaries, new technology initiatives, and the fiscal year 1997 budget request. And so, Mr. Chairman, I, too, am looking forward to hearing from the witnesses.

Senator STEVENS. Thank you.

General, let me apologize in advance. It is just 5 minutes or slightly after 6 a.m. in my home. As a matter of fact, even earlier in Hawaii. We are just now getting through to find out the assessment of last night's fire damage. So if I have to get up and answer the telephone, I apologize in advance.

Dr. Joseph, we will proceed with you. All of your statements are in the record, but we would like to have your comments such as you want to make them, and then we will ask questions after that.

Dr. JOSEPH. Thank you, Mr. Chairman and Senator Inouye. I am pleased to be here this morning, as always, along with my partners, the Surgeons General. With your approval I will submit my complete statement for the record and briefly summarize my remarks on the cost, accessibility, quality of our system, and our current status.

The bottom line is we believe we are well on track, not without problems but well on track. A major factor has been the important influence, positive direction, and strong bipartisan support of this committee, particularly with our managed care support contracts. I would like to thank you and your staffs for those efforts.

DEFENSE HEALTH PROGRAM

Let us just look back to where the military health services system [MHSS] was 10 years ago. Ten years ago CHAMPUS costs were going up more than 15 percent a year. Overall costs of the MHSS were increasing almost 12 percent a year. That has turned around now, for a number of reasons, from 1994 through 1996. Our CHAMPUS costs have risen only 3.8 percent, and that includes some startup one-time additional costs with our managed care support contracts, as well as buying out our CHAMPUS claims.

Overall in the Defense Health Program, our costs have only increased 1.2 percent, and in real terms, with the drawdown, our per capita rate actually declined about 1.75 percent. Considering that the national average for health care cost inflation was over 7 percent during that period, we think that is an important achievement.

As we look at access, as I have said before to this committee, it is our first three problems: access, access, and access. We do have to measure the view of our beneficiaries against those financial achievements. We have had tremendous support from the members of the Military Coalition. They have been very patient with us, especially with regard to our beneficiaries eligible for Medicare. There is considerable concern about the future, and I am sure we will talk more about that this morning.

Since 1989, with downsizing and BRAC, our operating beds have been reduced 21 percent. The number of military hospitals has gone down by 48 worldwide; that is almost a 30-percent reduction. Our military and civilian medical staffs have decreased almost 13 percent. That has all taken place while our beneficiary population has only decreased by about 8½ percent.

So there is an environment of concern and anxiety on the part of our beneficiaries, particularly the Medicare eligibles or dual eligibles. Let me say once more, as I do every chance I get, we must find a way to get Medicare subvention so that we can meet our commitment to our Medicare-eligible beneficiaries. I am sure you will have questions about that.

TRICARE is standing up. We now have four of the seven managed care support contracts and 7 of the 12 regions either in operation or about to come into operation in the next 30 days. We have hard data on a reduced number of patient complaints, and improvement in the overall access situation. We think that this managed care approach through the regional TRICARE system is the way to go. It will help us hold the line on our costs, improve our access, and retain the high quality that we have.

Ten years ago there were real concerns about the quality of the military health services system. We do not hear about those concerns anymore, except in individual incidents, which will happen in a system as large as ours, and which we have to keep trying to drive down. All of our independently practicing physicians are now licensed. We get the highest accreditation scores from the Joint Commission on Accreditation of Healthcare Organizations of any Federal or civilian system of hospitals. We also have twice the number of joint commission accreditations with commendation awards than any other system of hospitals.

Our first mission, of course, is caring for the active duty force wherever and whenever. The Surgeons General and I have taken a renewed aggressive approach toward looking at the medical readiness issues, looking at everything starting from doctrine through our capabilities, equipment, and the important interoperability issues that will make us able to train as we fight.

I briefed you earlier, at the start of the Bosnia deployment, about the medical program that we have for Operation Joint Endeavor. To this moment I think that the medical program has proven itself to be very well done. This is primarily because of the quality of the medical people who are running the operation and because of the tremendous support we have had from line commanders at all levels in Operation Joint Endeavor. We have a greatly expanded preventive medicine program, telemedicine is being tested and proving itself, and where a very effective deployment of clinical services.

For Operation Joint Endeavor, we probably have the best communication systems among the service medical departments, health affairs, the joint staff, the CINC, and theater medical people. I get a daily update briefing on activities in Bosnia, and we get a weekly update from the joint staff. There is a complete free flow of information from the EUCOM surgeon, the CINC surgeon, and various places here in the United States.

UNIFORMED SERVICES TREATMENT FACILITIES

I want to say a word about the uniformed services treatment facilities. They are an important issue among the spectrum of things that you raised in your opening statement. We think the best way to go is to bring the USTF's onto a level playing field within the TRICARE system, with retention of their independent status. But it has to be on a level playing field. We have worked very hard in the last 2 years to come to a better understanding with the USTF's. We recently thought that we were close to an agreement on guiding principles; but, that has gotten a little shaky in recent weeks. I want to reiterate before this committee my conviction that if the

USTF's are to play a continued role in the managed care system of the MHSS, it has to be on a level playing field.

You have seen the recent GAO reports that attest to the USTF's higher cost per unit of service. Those reports also raised questions about whether the USTF's should have a preferred noncompetitive status once their contracts expire and as the authority for USTF's expires in 1997. My personal belief is that we should try to reach some accommodation with the USTF's. But, I repeat, it has got to be on a level playing field. With resources as tight as they are these days, every dollar that we spend unnecessarily on one privileged group of providers is a dollar directly out of health care that is available in the MTF's for our other beneficiaries. And so a level playing field is the way that it has got to be.

In closing, we have come a long way in the last few years, and I would like to take a moment to recognize General LaNoue, who will be retiring this summer. General LaNoue has provided a very significant part of the intellectual drive that brought us this distance. His contributions are numerous, not only around the telemedicine initiatives, but in some of the fundamental advances begun in the Army's Gateway to Care Program that have taken us into managed care. We are going to miss him greatly, and it is important to recognize the enormous contributions that he has made.

PREPARED STATEMENT

I will stop with that. I, of course, will be happy to respond to any questions or comments that you might have.

Senator STEVENS. Thank you very much, Dr. Joseph. We will get back to you.

[The statement follows:]

PREPARED STATEMENT OF STEPHEN C. JOSEPH

Mr. Chairman, Distinguished Members of the Committee, I thank you for the opportunity to provide a comprehensive account of the Military Health Services System. I want to address our requirements as presented in the President's fiscal year 1997 budget and then go into some detail about the programs which support our twin missions of readiness and everyday health care delivery.

Department of Defense leaders, throughout the years, have stated that people are our most valuable resource; a principle clearly espoused by President Clinton and Secretary Perry in their determined actions to improve the quality of life for all members of the Armed Forces. Among the components contributing to an acceptable standard of living is health care: health care for service members wherever and whenever that care is needed; and, health care at home that is easily accessible, of high quality and at reasonable cost for service members and their families.

FISCAL YEAR 1997 DOD MEDICAL BUDGET

Of the total medical budget, almost $9.6 billion is planned for the Defense Health Program to provide support for worldwide medical and dental services to the active forces and other eligible beneficiaries, veterinary services, medical command headquarters, specialized services for the training of medical personnel, and occupational and industrial health care. Health care services will be provided in 116 military hospitals and 513 clinics for a beneficiary population numbering 8.3 million.

Included in the $9.6 billion are $3.5 billion in costs associated with the Civilian Health and Medical Program of the Uniformed Services [CHAMPUS] and TRICARE Managed Care Support Contracts [MCSC]. CHAMPUS is the program through which eligible patients may share the cost of health care purchased from the civilian sector. In 1993, the Department began a transition to the managed care concept of operation by adding several new components to its health care program. This managed care program, TRICARE, integrates the Civilian Health and Medical Program of the Uniformed Services with the military medical treatment facilities on a regional basis. TRICARE realigns the Military Health Services System into 12 DOD health care regions. The MCSC initiative, a significant component of TRICARE, will transition the purchase of health care and support services from civilian sources under the basic CHAMPUS program (fee-for-service) to fixed-price at-risk contracts. The fiscal year 1997 Defense Health Program funds the costs of the seven MCS contracts (covering all 12 regions) that will be negotiated and procured by the Office of CHAMPUS.

In addition, $269 million in the Defense Health Program provides for procurement of capital equipment for military medical treatment facilities and other health activities worldwide. It includes equipment for initial outfitting of new, expanded or altered health care facilities being constructed under major military construction programs; equipment for modernization and replacement of worn-out, obsolete or economically reparable items; equipment in support of TRICARE and medical treatment facility information processing requirements; and equipment supporting programs such as pollution control, clinical investigation, and occupational/environmental health.

The remainder includes the amounts requested for military medical personnel, almost $5.1 billion, and medical construction at $332.6 million.

Our fiscal year 1997 budget submission reflects strong commitments to readiness, quality of life issues and managed health care delivery. This submission represents fully funded CHAMPUS/Managed Care Support Contracts and the phasing-in of the new cost-shares for the uniform HMO benefit. This submission continues funding, $14.3 million, for our Comprehensive Clinical Evaluation Program and research activities in support of our service members and their families who are suffering from illnesses thought to be associated with service in the Persian Gulf.

This submission uses a capitation based model to determine the basic funding requirement for the Defense Health Program. The methodology is based on fiscal year 1995 costs. Rather than determining our capitation rate using the total number of eligible DOD beneficiaries, we estimate the number of those beneficiaries who actually use our system. That estimate is determined by a survey conducted semi-annually. The costs divided by the number of estimated users results in the capitation rate. We then adjust that rate for inflation and known changes from the base year.

This budget represents a decline in purchasing power of $880 million. This decline is driven by a reduction in our user beneficiary population, the ending of our force commitment in Bosnia, as well as the ending of other contingency operations. We are also handling this decline through the replacement of CHAMPUS fiscal intermediary contracts with more efficient Managed Care Support Contracts as well as our increased use of Utilization Management initiatives.

DOD HEALTH CARE LEADERSHIP

Building the medical programs for the Department of Defense is an effort for which considerable negotiation, coordination and collaboration is essential. During the past year, Health Affairs, the Surgeons General of the military services, the senior medical officer of the Joint Staff, and the Principal Deputy Assistant Secretary of Defense for Reserve Affairs have solidified the organizational means to ensure open and timely communications and decisionmaking in support of the mission, programs and personnel of military medicine.

Working throughout the year, we have defined the strategic goals for the Military Health Services System, produced a strategic plan and strategies for meeting these goals and begun to tailor and to place in priority our programs and efforts to comply with our strategies.

It is my belief that military medicine, today, has in place the tools necessary to lead, guide, size and shape the Military Health Services System to meet its twin missions into the next century. Along with senior advisory groups, both internal to the Department as well as from the external community, we have the Defense Health Program, our capitated budgeting process, and TRICARE. In addition, we continue to place highest priority on the requirements necessary for medically supporting the Armed Forces in carrying out the military objectives of our national security strategy.

READINESS

The world in which we live is charged with activity. It is neither settled nor predictable. Our national security strategy recognizes that the interests of this nation remain global in nature, while the threats we face are more diverse. The President's national security strategy is one of engagement and enlargement. As the world's leading power, the United States must do all it can to deter aggression, promote peace, and foster the growth of democratic governments throughout the world.

For the Department of Defense, this strategy underscores the need to be prepared for short-notice deployments in harsh, austere environments with missions that range from war to contingencies to peacetime operations. Military medicine must be prepared to play an integral part in this strategy.

Because military medicine exists to support the men and women in uniform, especially when they deploy in response to our national security policy decisions, readiness of our medical personnel and units must be our paramount concern. Today, our Armed Forces are serving the NATO peacekeeping mission in Bosnia; and military medicine is there. This mission, while peacekeeping in nature, is fraught with dangers to the health and safety of our troops. The environmental health threats to our force in Bosnia range from the severe cold weather, poor to non-existent public works such as sanitation, to endemic diseases and the presence of innumerable land mines.

The medical preparations we have taken with this deployed force are different from previous deployments. These differences are a result of the progress we have made in placing tremendous emphasis on our readiness posture, and of implementing changes to improve our approaches to deployment, many arising from our experience in the Gulf War.

Prior to deploying, we conducted medical screening of all personnel, we have pointedly informed our troops regarding the environmental health risks they may encounter and offered information and training on how to stay healthy. Plus, we are capturing demographic data for all those who deploy.

During this deployment, we have preventive medicine and combat stress teams accompanying the force. Other very specialized teams will deploy at the call of the commander, in coordination with the US European Command Surgeon, to address specific potential hazards. Additionally, a preventive medicine officer has been detailed to the staff of the US European Command Surgeon. The deployed preventive medicine teams in Bosnia will assess all aspects of disease and environmental threats; establish geographic-specific medical surveillance systems; investigate disease outbreaks; implement preventive medicine measures; and, document environmental and combat exposures.

Prior to or shortly upon their return, service members will be screened for identified health concerns. Once home, service members will receive information handouts, individual counseling, and medical referrals when indicated. Additionally, rosters of all deployed personnel will be stored in an accessible database to allow for future review and screening.

The medical contingent deployed in support of our peacekeeping efforts in Bosnia includes hospitalization, dental, veterinary services, laboratory, and medical evacuation assets. In Hungary we have a larger hospital capability; and for further, more specialized care, patients will be medically evacuated to the Army Medical Center at Landstuhl, Germany.

Most medical units in Bosnia deployed from Europe, notably the 30th Medical Brigade as the medical Command and Control Headquarters, the 212th Mobile Army Surgical Hospital, situated in Bosnia and operating 36 beds and 4 ICU beds, and the 67th Combat Support Hospital, located in Hungary and operating 52 beds and 10 ICU beds. As of May 24, our medical units had admitted 956 patients, performed 93 surgeries, seen 14,656 ambulatory patients, and evacuated 507 out of the theater of operations. Virtually all patients sought medical attention for diseases or non-battle injuries.

We have established a telemedicine network within Bosnia linking all of our medical units, then linking these units to the hospitals in Hungary, Germany and here in the United States. Additionally, the U.S.S. *George Washington*, while in the Mediterranean Sea in support of Operation Joint Endeavor, was the first carrier to deploy with full telemedicine capability. What telemedicine means in Bosnia is that, real-time, very specialized health care, in the form of diagnoses and consultation, can be projected forward to the patient. It means very high quality, sophisticated care for the patient, often without having to transport the patient hundreds, even thousands of miles from his or her unit.

Our nation believes it is important to ensure the health of our men and women in uniform, and to have medical attention readily available in the event of injury or disease, anywhere, anytime. These expectations mean the Armed Forces need a health care component that can do as they do; they need Army medicine, Navy medicine, Air Force medicine.

Health care deployed in support of the Armed Forces, medical research, education, primary, specialized and follow-up care, and prevention and health promotion are all elements of a strong military health care delivery system that is responsive to the needs of the people it serves.

It is my responsibility to develop the policies and design the programs to enable the men and women of the Military Health Services System [MHSS] to do their jobs. It has been my practice to closely coordinate these decisions with the Surgeons General of the military services.

A perennial debate to which the MHSS is again joined concerns the appropriate size of the medical force; just how many physicians should be on active duty?, what is the correct size of the MHSS itself?, how much more capability can be added, or subtracted, based on cost-benefit analyses?

The current assessment, directed by the Deputy Secretary of Defense, is a major update to the original Section 733 Study, The Economics of Sizing the Military Medical Establishment. The Section 733 Study was directed in the fiscal year 1992 and fiscal year 1993 National Defense Authorization Acts. Mr. William Lynn, Director of Program Analysis and Evaluation, testified before Congress on April 19, 1994, on the results of that landmark study which seriously questioned the size of the current MHSS to support wartime requirements. This update was directed because of the controversy caused by the original study; the subsequent renewed interest in the issue by Congress, Section 745 of fiscal year 1996 National Defense Authorization Act; the recommendations of the Commission on the Roles and Missions [CORM] of the Armed Forces; and, the Secretary's reply to Congress on the CORM recommendations.

Mr. William Lynn and I are co-chairing a senior level Steering Committee that is overseeing this update study. We have three working groups reporting to the Steering Committee.

Working Group No. 1—Wartime Requirements will determine the number of medical personnel needed to support the current planning scenarios involving two, almost simultaneous, major regional conflicts.

Working Group No. 2—Sustainment and Training will determine the number of medical personnel needed in the sustainment and training base to support the wartime and operational requirements.

Working Group No. 3—TRICARE Cost Savings will analyze the full cost savings potential from implementing utilization management, propose metrics to monitor the progress of the Department's TRICARE program, and consider the proposal of a fourth option, such as access to the FEHBP, for the TRICARE program.

While it is still too early for the final results, the deliberate approach being taken this time is designed to ensure that all interested parties have an opportunity to participate and that all relevant issues are evaluated. I am confident this effort will provide the Department, and ultimately the Congress, with a valuable new baseline for evaluating the appropriate size of the MHSS.

It is not possible to maintain a trained and prepared medical force ready to deploy on short notice without the MHSS. It is in the everyday operation of the MHSS—caring for patients of all ages—that our medical personnel increase their skills as health care professionals. And, very importantly, it is where our medics and independent duty corpsmen receive the patient care training they need to do their most vital jobs.

An underlying strength of the MHSS is having practitioners who are themselves members of the U.S. military. These health care professionals, like their military professional counterparts, need to maintain their technical skills; our health care personnel do this by practicing medicine in military medical facilities everyday. They also need to understand the military system, its plans, doctrine and operating systems. To gain that understanding they must use their health care skills in the military operational environment of their service: field, transportable, or shipboard medical facilities. Participation in readiness training exercises is one means that offers military health care professionals an opportunity to learn how field medical units or the medical facilities onboard ship might operate during a deployment. This training experience is essential in order that our military medical personnel are fully prepared for military commitments which involve a force deployment. Bosnia is today's deployment, and it is one cloaked in risk to the health of our men and women who are there. We are committed to minimizing that risk and sustaining the health of our people.

TRICARE

TRICARE increases flexibility for the MHSS, which affords our military medical personnel the ability to maintain their personal readiness while assigned to a base hospital or clinic. This flexibility is demonstrated in the unprecedented collaboration among the military medical departments and in the partnerships we are building with civilian health care companies. These initiatives, joint service sharing and strong public-private partnerships, contribute to the survival of the MHSS.

Survival also means changing: improving operations, controlling costs, becoming more beneficiary-friendly, enhancing the quality of the care provided, and always continuing to support readiness. The outcome of these changes are the goals of TRICARE.

Implementation of TRICARE across the country is very much on-schedule. We began TRICARE Prime in the Northwest Region, Region 11, in March of last year. Prime services began in Region 6, Oklahoma, Arkansas, most of Texas and most of Louisiana, in November of 1995. The contract has been awarded for Regions 9, 10 and 12, California and Hawaii, with services beginning on April 1, 1996. In the Southeastern United States, Regions 3 and 4, covering the States of Alabama, Florida, Georgia, Mississippi, South Carolina, Tennessee, Southeast Louisiana and a small part of Arkansas, we have awarded the contract, and services will begin in July of this year. Award of the contract for Regions 7 and 8, the North Central and Desert States Regions, has had a short delay in order to include the provisions in law to provide wrap-around mental health services; services should begin in February of next year. The start of services for the remaining regions, 1, 2 and 5, will be during the August-September 1997 period.

So far, we have been successful in tackling a variety of difficulties and obstacles, from enrollment glitches to contract award protests. While the protests are likely to continue with each new award, many of the implementation difficulties are being minimized through the sharing of information among Lead Agents. Our record on GAO protests is a good one: of the ten protests filed, we have won seven, lost two and one was dismissed. With regard to litigation, nine suits have been filed against us; we have won eight and one is still pending. Finally, of the three Agency level protests we received, DOD denied one and resolved the other two.

In the regions where Prime enrollment has begun, the trend is that anticipated numbers of enrollees have been far exceeded very early, leading to slow-downs in the enrollment process and even backlogs. Despite the bottlenecks, the message is clear that beneficiaries want to join Prime. In Region 11, enrollment began in March 1995 and their numbers as of May 16, 1996, totaled 147,443. The experience is similar in Region 6, where, in the first six months of operation, enrollment numbers totaled 161,697. This exceeds the number projected for the entire first year.

MANAGED CARE SUPPORT CONTRACTS

Among the public-private partnerships contributing to the strength and flexibility of the MHSS and TRICARE are the Managed Care Support Contracts. Through these contracts, military hospitals expand their ability to offer the full range of health care services to beneficiaries depending on the MHSS for their care. The managed care support contracts assist military medical facilities by establishing a network of civilian providers to complement the military's capabilities, operating a health care finder service, conducting beneficiary services, processing claims, and more.

These partnerships also will afford us the opportunity to test the prospect of offering TRICARE Prime to our active duty families assigned to locations far distant from military medical facilities, such as recruiters and those in ROTC assignments. We began this test in Region 11, starting with the Portland, Oregon area on May 1, 1996, and as of May 22, 635 active personnel have enrolled. By July 1, the demonstration will be operating in all remote duty locations throughout Region 11.

We have awarded three managed care support contracts covering Regions 6, 9, 10, 11 and 12 to Foundation Health Federal Services, Inc. Humana Military Healthcare Services is the winning contractor for Regions 3 and 4.

Last year the Congress commended the Department on its efforts in moving towards a nationwide managed health care system for the military, TRICARE. Existing law at the time mandated that the TRICARE program be fully implemented by September 30, 1996. The Congress was concerned that the Department had accelerated the process in order to meet this statutory deadline and felt that there would be great benefit from additional time in meeting the complex requirements of TRICARE. Therefore, they extended the deadline for implementation of the TRICARE program by 1 year.

We have taken advantage of this new authority. We delayed the start of the procurement process for the Region 1 and Regions 2 and 5 Managed Care Support contracts. The delay has afforded us the opportunity to complete development of the Composite Health Care System [CHCS] interoperability and to evaluate various alternative financing methodologies to allow the military medical facilities to manage and be accountable for all health care of its enrollees.

The new financial approach that we selected will significantly clarify military medical facility financial responsibility for the Prime enrollees while retaining a partnership with the contractor. There will be a continued sharing of risk for all CHAMPUS eligibles not enrolled with the military medical facility; and, more frequent bid price adjustments to improve the "real-time" cost impact of management decisions by the military medical facility commanders. By clarifying the military medical facility's financial responsibility, we strengthen that facility's incentives to manage utilization. Both of these enhancements are included in the Requests for Proposals for Region 1 and Regions 2 and 5.

CAPITATION FINANCING

One of the management initiatives that has afforded us the ability to make a significant philosophical change in health care delivery is capitation financing. Medical treatment facility commanders have been provided the information and incentive to manage all of the DOD resources expended within their areas of influence which is considered to be the user beneficiary population in their respective catchment (or health service) areas. For the past two fiscal years, the three Military Departments have provided their commanders with specific information concerning the expenditure of CHAMPUS funds as well as the dollar value of the military staff participating in patient care activities. By taking this integrated approach to health delivery planning and execution, commanders and their staffs have realized significant improvements in utilization patterns and better coordination of required services for our beneficiaries. In short, our shift in external emphasis from process-oriented workload counts to healthy beneficiaries has begun to enable clinicians to concentrate on developing strategies to encourage healthy lifestyles, emphasize preventive measures, and return sick and injured patients to full health and functionality as efficiently and quickly as possible.

The development of our capitation model for determining resource requirements has revolutionized the budgeting and programming for the Defense Health Program. With recent refinements such as adjustments for differences in age/sex mix, we have a very dependable way to forecast our per capita resource requirements. As a result, we are better able to identify real opportunities for improvements in efficiency and effectiveness.

DUAL ELIGIBLES: DOD AND MEDICARE

We continue to evolve TRICARE in our efforts to make it the best health care plan in the country. In doing so, we must work within the constraints of our budget and to the extents of our legal authorities. By Congressional direction, TRICARE shall not increase the Department's health care costs, and at the same time the costs to our beneficiaries shall not increase. This tug-of-war with dollars has caused many of our retirees to be unhappy with the enrollment fees required of them and their families, should they elect to join TRICARE Prime. The Fiscal Year 1996 Defense Authorization Act, granting priority use of the military treatment facilities for enrollees, serves to alleviate some of that unhappiness.

Still, there remains one critical issue: care for our Medicare-eligible beneficiaries. Last year, over 250 Members of Congress sponsored or co-sponsored legislation that would have allowed the Health Care Financing Administration [HCFA] to reimburse DOD for care that military facilities provide for these dual-eligible beneficiaries. Similar bills have been proposed again this year.

There are many options for resolving this issue. One alternative is to allow these patients to continue on a space available basis in our military medical facilities. However, space is becoming less and less available as our military medical facilities are closed through the Base Realignment and Closure process and as the competition for military medical facility access increases. Gradually, if no other action is taken, Medicare will probably be responsible for an increasing share. At present, DOD estimates that it provides $1.4 billion in care to dual eligibles.

A second alternative is to have HCFA reimburse DOD for those dual-eligibles who enroll in TRICARE Prime. Historically, the CBO has scored this alternative as increasing entitlement dollars without an off-setting decrease.

In response to the 1995 Defense Authorization Act, we proposed to HCFA conducting a demonstration whereby military medical treatment facilities may be reimbursed as providers under existing Medicare health maintenance organizations [HMO]. Discussions are currently underway within the Administration to determine the feasibility of a new demonstration where DOD would maintain its current level of effort and would expend those funds first; then, turn to HCFA to cover additional dual eligible beneficiaries who choose to enroll in TRICARE Prime. We would like to see this demonstration begin as soon as technical and demographic specifications can be agreed upon.

A third alternative would be for DOD to continue to pay for medical care for Medicare eligibles. We currently budget to provide space available care to a growing number of our beneficiaries who are Medicare eligible. However, providing care under TRICARE for these beneficiaries could be excessively costly to DOD.

The Congressional Budget Office [CBO] recently made cost analyses of the "concept" of a Medicare reimbursement demonstration. It is our recommendation that the CBO analyze specific authorization language.

FEDERAL EMPLOYEE HEALTH BENEFIT PROGRAM OPTION

Some of the Associations which represent our beneficiary populations have examined a variety of health care options and are seeking consideration for access to the Federal Employees Health Benefit Program as an option to TRICARE. We are examining this alternative at the present time as part of the Deputy Secretary's directed update of the Section 733 Study which should be completed in the next few months.

I strongly believe, as does each of the Surgeons General, that any potential modification of the military health benefit must be developed in close coordination with our Committees of Jurisdiction. In that regard, we pledge to work with our committees to explore all reasonable possibilities, while ensuring the viability of the Military Health Services System and our commitment to meeting our primary responsibility to care for the Armed Forces when operationally deployed.

We are focusing our study on active duty families assigned to areas where TRICARE Prime is not available, rather than retirees, their family members and survivors. This is because DOD already assumes the vast majority of health care cost for active duty families, whereas many CHAMPUS-eligible retirees have other primary health insurance and are not reliant on DOD at present. There is a risk that beneficiaries who are currently not reliant on the Government for their health care coverage could be induced to drop their non-Government coverage, resulting in new costs to DOD, estimated at up to $500 million. A parallel circumstance exists for Medicare-eligible DOD beneficiaries. DOD provides space-available care in military facilities for many of these beneficiaries, but costs for private sector care is reimbursed by Medicare. Offering FEHBP coverage to DOD Medicare eligibles would require additional, new funding for DOD, estimated at up to $1.5 billion.

CLOSING

In closing, Mr. Chairman, I want to stress to you the fact that our Armed Forces are participating in operational deployments around the world. These are not wars, nor combat actions. They are currently peacemaking and peacekeeping operations, humanitarian and disaster assistance efforts. It means that we have our service members on the move frequently, temporarily living in makeshift accommodations around the globe. It means we have a tremendous need for rapidly deployable, highly qualified medical personnel to ensure the health and safety of these men and women. What we learned from Desert Storm, the Sinai, Somalia, Rwanda, Haiti, Macedonia, Guantanamo, we are applying today in Bosnia.

Being prepared for the next deployment demands an actively engaged, strong Military Health Services System, one which constantly strives to find better, more effective ways to meet its myriad responsibilities. I believe we are doing exactly that with TRICARE.

TEAM BUILDING

Senator STEVENS. General LaNoue.

General LANOUE. Thank you, Mr. Chairman, Senator Inouye. I want to express my gratitude for allowing me the privilege and the honor to serve the past 4 years as the Surgeon General of the U.S. Army. I feel that during that time we have focused on many, many issues. It has not been easy. It has been a difficult time. But nevertheless, with your support we have made progress in every sphere we have worked toward.

Sir, we had a vision, a vision of being a world-class organization that delivered quality care to America's Army at home and abroad, accountable to the American people. I feel we have met that vision, and continue to improve on a month-by-month basis.

Sir, we have done that with three themes, the themes being readiness is job one. And so as we downsize, reorganize, reengineer, work together, that we must constantly be accountable for our readiness posture as we change.

The second theme has been one of team building, and I, too, would like to thank Dr. Joseph and my fellow Surgeons General for allowing the team atmosphere among us to build. We have a level of inter-working relationships that we never had before. That has been amazing to watch. And we have done things that counter some barriers that have been there for years, and Dr. Joseph has been extraordinarily successful at bringing those barriers down.

The team building has gone throughout my organization, which allows doctors and nurses and Medical Service Corps officers and veterinarians and optometrists and the whole host of people that we have to all field partners and members of the bigger team. We have reorganized our team so that it would have a flatter organization and greater teamwork amongst it, very dependent on the communication processes that we often refer to as telemedicine.

Sir, the third theme is one of customer focus. And immediately we come to think of all of our patients as our customers. But I, too, must think of you as a customer, I must think of my chief of staff and Secretary of the Army as very, very important customers, and I think our organization has been successful at doing that.

PREPARED STATEMENT

It is my task and job and privilege to support the President's budget. I think we can do that; however, there will be some consequences as we reengineer in order to accommodate the reduced buying power.

Sir, I will be glad to take questions.

Senator STEVENS. Thank you.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. ALCIDE LANOUE

INTRODUCTION

Mr. Chairman and members of the Committee, I am Lieutenant General Alcide M. LaNoue, the Army Surgeon General. It is a privilege for me to address this committee to report on Army health care programs and discuss our plans for the future. I thank you for your continuing support of the Army Medical Department (AMEDD) and its efforts to provide the finest medical support to America's Army.

As we approach the end of the final decade of the 20th Century, it's an appropriate time to reflect on the significant events and trends that have influenced our environments. Perhaps I have more of a propensity towards introspection now as we look towards the next century because I am simultaneously approaching the end of my tour as the Surgeon General of the Army. When I think about the changes that have occurred in my 36 years in the Army, or even in my three and one-half years as Surgeon General, I am truly astonished. I don't think anyone could have accurately predicted the scope or the speed of the process. Who could have imagined five years ago that in 1995, American forces would be in Hungary to join Russian allies for a peacekeeping mission in Bosnia?

The developed world has undergone a profound revolution that has affected almost every thing we do at home, at work, and at play. The Army and the Army Medical Department (AMEDD) have not been immune to many of these changes. In fact, I'm proud that the AMEDD has often set the pace in adapting to evolving ideas.

General Dennis Reimer, Chief of Staff of the Army, recently spoke of six Revolutions in Military Affairs. The most recent is the Information Revolution generated by the development and refinement of computers and advanced communications.

Those who can master the ability to collect, analyze, and disseminate information will enjoy an overwhelming advantage in almost every competitive circumstance, including the battlefield, business, academics—and health care.

No one should doubt that medicine in general, and Army Medicine in particular, is deeply involved in the profound revolution spawned in large part by the arrival of the Information Age. Other sources of turbulence have also contributed over the past few years to the necessity for changing the ways we carry out our mission. The geopolitical turmoil after the dissolution of the Soviet Union has dramatically changed our national security goals. Today there are about 41,000 soldiers deployed away from their home stations that require medical support. Within our own country escalating health care costs have caused widespread demands for reforms in health care delivery.

I believe that this ongoing Army Medical Revolution, in which we have all been involved, can be best described by looking at four of its interrelated campaigns.

BUSINESS PRACTICE IMPROVEMENTS

In 1990 the AMEDD embarked on an intense program to improve our business practices. Years before health care reform became front page news, we had begun our own reform initiative. By combining the lessons learned from various CHAMPUS Reform Initiatives, the tenets of Total Quality Management, and sound business sense into the Gateway to Care program, the AMEDD positioned itself well for the transition to the DOD TRICARE managed care program.

The implementation of TRICARE is one of the most important issues in military medicine today. It must be properly implemented if the Military Health Service System (MHSS) is to survive as a viable healthcare delivery system. As with any new program that brings significant change, there were initially some uncertainties about its impact. The TRICARE contracting process is extraordinarily complex and detailed. Careful contract refinements, adjustments and retrofitting will be required, as we proceed, if we are going to make TRICARE work.

For example, some recently proposed changes in the contracting process will potentially increase local commanders' authority and flexibility in working with their regional support contractors and their beneficiary populations. The beneficiaries have become an integral part of the TRICARE equation since they must now assume a greater role in maintaining their own health. Part of our challenge will be to ensure that our patients have the correct information and motivation, when and where they need it, to fulfill their new responsibility effectively. Patients must become active partners with providers to make TRICARE work.

The Army is eager to work with our sister services, our patients, and all other stakeholders under TRICARE to build a world class DOD healthcare system. This kind of collaborative partnering—and none of us can afford to forget that we are all partners—is exactly the kind of spirit needed to make ourselves the health care providers of choice for our beneficiaries.

Learning to market the TRICARE program will be one of our big challenges for the next few years. We must educate our customers about the program's benefits and limitations, and their new more active role in the process. Marketing is a two-way communication process which means that we have to find a way to get reliable feedback from our customers to identify successes and failures so that we can improve accordingly. The customers' full participation is crucial. None of us can survive if we do not pull together to make TRICARE work.

It should also be noted that TRICARE contributes to Army medical readiness. Our mission is to always field the healthiest and most disease/trauma resistant soldier. By its emphasis on health promotion, disease prevention, and primary care services, TRICARE supports this mission. TRICARE can also support deployments and readiness training missions by back filling lost providers during these times. Finally, TRICARE delivers a comprehensive health care benefit to soldiers' families as part of their compensation package.

Approximately one million Americans age 65 and older who are entitled to Medicare insurance coverage are also entitled to receive health care in DOD military treatment facilities on a space available basis. About 230,000 of these dually eligible beneficiaries regularly use the military health care system. With Medicare eligible beneficiaries growing at 5 percent a year throughout the MHSS, we need Medicare subvention. DOD pays an estimated $1.4 billion per year out of its annual appropriations to deliver health care services to this population. In order to provide further support to this population the Department of Defense (DOD) and the Health Care Finance Administration (HCFA) are working to establish the feasibility of a subvention demonstration that would permit some level of reimbursement from HCFA to DOD.

I have personally challenged my commanders to work with their Lead Agents and managed care contractors to find solutions. Resource sharing and/or resource support, funded by the savings from good utilization management, can be used to increase primary care through contracts and expanding evenings and weekend appointments. The lessons we learned from our Catchment Area Management demonstrations and the Gateway to Care program prove that we can leverage resources and provide more care for everyone.

AMEDD REORGANIZATION

The activation of the U.S. Army Medical Command (MEDCOM) in 1994 was a major milestone in our efforts to re-engineer the Army's medical assets into an organization prepared to meet the challenges of the next century. One of my first tasks after becoming Surgeon General was to charter Task Force Aesculapius (TFA) to begin the painstaking process of doing a top-to-bottom functional analysis of all our assets. The ultimate goal for TFA was to redesign ourselves into a streamlined, flattened organization that ensures the right work is being done at the right level by the right people. I'm proud that General Gordon Sullivan, then Chief of Staff of the Army, referred to the MEDCOM as the "First Force XXI Major Command."

Evidence indicates that we have been successful in restructuring our top echelons according to the guidelines for a Learning Organization described in Peter Senge's "The Fifth Discipline." These re-engineering efforts, as well as other principles of Total Quality Management, have not yet been completed in all our hospitals, clinics and labs, but the complex process is gradually filtering throughout our individual facilities which form the basic foundation of the AMEDD. I'm confident that we are well on our way to top-to-bottom incorporation of sound business-oriented practices.

The establishment of seven regional organizations currently referred to as Regional Medical Commands (RMC) appears to have been a good decision. As they mature, the RMC's are making great strides in integrating Reserve Component assets into a seamless, combat-ready force. This is critically important for the Army because 70 percent of our assets are in the Reserve Component. By working to improve liaison with all units in their geographical areas, the RMC's are laying a foundation to correct some of the readiness shortcomings we experienced in Operation Desert Storm. So far, it appears to be working. Most of our Reserve Units have demonstrated improvements in staffing, training, and equipment. However, we still have a long way to go to be judged truly ready, and continuing this trend will be one of the AMEDD's top goals for the foreseeable future. After all, combat medical readiness is our primary mission.

Another aspect of maintaining maximum readiness is learning to keep our soldiers and their families healthy at all times before, during and after deployments. The establishment of the Center for Health Promotion and Preventive Medicine (CHPPM) will make that easier and more effective in the future by concentrating our promotion and preventive medicine assets in one unified organization. Refocusing attention on wellness will also have a direct impact on our ability to control the costs of health care. If we can teach our beneficiaries to make healthy life style changes, we can avoid the financial burden and human suffering of many devastating illnesses. Smoking cessation, weight control, and HIV awareness are obvious examples of programs to prevent future medical problems. In addition to the human toll avoided, each has a big payback for each dollar invested in preventive measures.

Historically more armies have been lost to disease than any weapon or weapon system. Recognizing this, the AMEDD has as one of its core competencies a strong and effective research and development activity. As our Army becomes smaller and more technologically sophisticated the importance of each and every member becomes increasingly critical. We cannot afford to lose soldiers unnecessarily, especially to disease. Yet we find ourselves more and more operating on the frontiers of the world, in areas of increased exposure and danger. It is therefore of great interest to the Army, and to the Nation, that our soldiers be protected. We cannot do this without a strong and effective research and development program.

Perhaps the greatest impact of the reorganization has been felt in the Office of the Surgeon General (OTSG) in the Washington area. We have seen OTSG shrink from nearly six hundred people to a little more than one hundred. That's a voluntary 80 percent reduction that has resulted in a more streamlined, flattened organization that can still do what needs to be done here in the National Capital Region.

COMBAT RE-ENGINEERING/ARMY FORCE XXI

Army Medicine is determined to keep in step with the rest of the Army as it transforms itself to meet the Nation's needs in the next century. Although rooted in more than 200 years of dedicated service to the country, the Army also has a clear vision of the needs of tomorrow, and they are quite different than those we are accustomed to. Force XXI, the Army's modernization effort, is the model for the AMEDD's parallel Medical Re-engineering Initiative (MRI) being undertaken by the AMEDD Center and School. Working in close liaison with senior Army planners, the AMEDD is redesigning itself to align with new Army organizational structure and war fighting doctrine. Army medics have fought hard to become an integral part of major Army and joint DOD training exercises.

Another major focus of the MRI effort is to work with the other services to develop a joint version of the Army's methods for determining battlefield needs and the best way to fulfill them. As the Army looks to future battlefield scenarios, these situations are analyzed in depth to determine which of several well-defined methods—Doctrine, Training, Leadership, Organization, or Materiel (DTLOMS)—or combination thereof, best addresses the issues. No other comparable program exists in DOD. We hope to be successful in developing a DTLOMS process into the joint medical arena in the near future to increase interoperability among the three services' medical assets.

The rules have changed primarily because of increasing reliance on technology and the ability to manage information. Information has become power in the Third Wave. The side that best manages information will have an overwhelming advantage over its adversaries whether on the battlefield or in business or any other arena. Soldiers of the 21st Century, including medical soldiers, must be comfortable with technology and good processors of information. The AMEDD has been at the forefront of incorporating new technology into all functions to make ourselves more efficient and effective. That's critical to our survival during times of increasing competition for scarce resources.

There are many non-medical military personnel who believe that the MHSS is simply too big and expensive for today's reduced force structure. Some senior leaders argue that DOD cannot afford us. I argue that they cannot afford to lose us because any other alternative is even more expensive in terms of direct financial costs and—more importantly—lives lost on the battlefield.

TECHNOLOGY

Our ability and willingness to leverage advanced technology is one reason the AMEDD has maintained a considerable degree of acceptance and respect during the downsizing.

The AMEDD hi-tech revolution in telecommunications touches every corner of the organization, including combat medicine and our day-to-day business practices. Telemedicine can be defined as the medical digital technology and communications used for the projection of medical expertise and expert medical mentoring without requiring the physical presence of the expert or specialty care provider. I am convinced telemedicine will change the way health care is delivered throughout the world both on and off the battlefield. I am proud that we have many entrepreneurs throughout the AMEDD who are working diligently to develop innovative uses of telemedicine within their own resourcing structure. They are encouraged to combine smart business practices and modern technology to solve local problems.

The Army telemedicine efforts are incorporated into the Medical Communications for Combat Casualty Care (MC^4)program and include six thrusts. These are: far forward telemedicine appliques, the mobile medical mentoring vehicle, Theater Medical Information Program (TMIP), expert tertiary care host appliques, rapidly driven DARPA advanced technology insertions, and telecommunications and operational sustainment.

One tactical example is our use of technology to help identify and locate soldiers who are in physical distress. A new Personnel Status Monitor (PSM) is being developed that will automatically send out electronic signals when a soldier is in cardiac or respiratory difficulty by measuring blood pressure, pulse rate, temperature and other body signs. We can learn immediately if the soldier needs medical assistance.

Telemedicine is being employed in support of Operation Joint Endeavor in Bosnia. Operation Prime Time III will provide Landstuhl Regional Medical Center, the 67th Combat Support Hospital (CSH), the 212th Mobile Army Surgical Hospital (MASH), and other deployed medical units the following capability: access computerized medical records; track patient evacuations; utilize full motion remote video teleconsultations; provide CT scanner, ultrasound and diagnostic teleradiology support; minimize evacuations for diagnostic workup; as well as permit use of other telemedicine applications.

The tactical use of telemedicine offers us the potential of extending the reach of a vast array of medical specialists much farther forward than anything we have ever imagined in the past. Whether it's a monitor set up at a battalion aid station or mini-cameras mounted on the helmets of frontline medics, the possibility of projecting medical expertise from tertiary facilities anywhere in the world right up to the fallen soldier on the forward line of battle promises real opportunities to deliver world class care to our troops even in desolate geographical areas. I am certain that if we had telemedicine in Vietnam, there would be far fewer names on The Wall at the Vietnam Memorial today. I am determined to keep as many future names as possible off of future Walls.

The use of telemedicine in routine CONUS-based care is equally impressive. As the lead agent for DOD, the AMEDD is taking the lead in this new technology that allows both patients and providers to gain access to health information quickly and conveniently. Tripler Army Medical Center (TAMC) in Hawaii; Walter Reed Army Medical Center (WRAMC) in Washington, DC; Eisenhower Army Medical Center (EAMC), Fort Gordon, Georgia; Brooke Army Medical Center (BAMC), Fort Sam Houston, Texas; and Madigan Army Medical Center (MAMC), Fort Lewis, Washington have all developed telemedicine initiatives involving civilian institutions, other federal facilities, and military treatment facilities within their regions.

Because of the new Third Wave technology and our success in minimizing battle and nonbattle casualties during Desert Storm, many analysts have jumped to the erroneous conclusion that future wars will be bloodless computer games. The proliferation of weapons of mass destruction, exacerbated by the rise of rogue mini-nations and ideological factions, makes for a very dangerous world. We never know where the next flash point will appear on the globe. We must work to make absolutely certain that our soldiers are given the best weapons, training, and medical support that the country can possibly provide. If we can survive future assaults on our financial and personnel resources, I think we are in excellent position to remain a viable, world class system capable of continuing Army Medicine's proud tradition of Caring Beyond the Call of Duty.

The new Army Medical Department is a powerful arrangement of units, creative people, empowered commanders, and complementing staffs focused on carrying forward the great tradition of Army medicine. I am confident that with your continued support the AMEDD will be in great shape to meet the challenges of the future.

Once again, I appreciate the opportunity to appear before the committee and shall be happy to answer any questions you may have.

Biographical Sketch of Lt. Gen. Alcide LaNoue

Lieutenant General Alcide LaNoue was sworn in as the thirty-eighth Surgeon General of the Army on 11 September 1992. General LaNoue was born in Tonawanda, New York, on 2 November 1934. He graduated cum laude from Harvard University in 1956 and received his medical degree from Yale University Medical School in 1960. General LaNoue's additional medical specialty training includes an internship and residency at Brooke General Hospital, Fort Sam Houston, Texas, and general surgery training at U.S. Army Hospital, Fort Campbell, Kentucky. His military education includes the United States Army Medical Field Service School and the United States Army Command and General Staff College.

General LaNoue is a fellow of the American College of Surgeons and the American Academy of Orthopedic Surgeons. He is associated with the American Board of Orthopedic Surgery; Association of the United States Army; American Medical Association; Association of Military Surgeons of the United States; Society of Military Orthopedic Surgeons; and American College of Physician Executives.

General LaNoue has held a variety of important command, staff, and clinical positions culminating in his current assignment as The Surgeon General. His recent assignments include Commander, U.S. Army Health Services Command; Deputy Surgeon General of the Army; Commandant, Academy of Health Sciences, U.S. Army, Fort Sam Houston, Texas; Commander, Dwight David Eisenhower Army Medical Center, Fort Gordon, Georgia; Commander, U.S. Army Medical Department Activity, Fort Benning, Georgia; Commander, U.S. Army Medical Department Activity, Fort Stewart, Georgia; and Commander, 97th General Hospital, Frankfurt, Germany.

General LaNoue completed several assignments with the 44th Medical Brigade in Vietnam, and has served as Assistant Chief, Orthopedic Service and Chief, Amputee Service, Valley Forge General Hospital, Phoenixville, Pennsylvania; Chief, Orthopedic Service/Coordinator, Clinical Investigation, Valley Forge General Hospital; and Assistant Chief, Orthopedic Service, Walter Reed Army Medical Center, Washington, D.C.

General LaNoue has authored and coauthored numerous papers in the orthopedic and surgical fields, as well as on the treatment of fractures and management of war casualties. His awards and decorations include the Legion of Merit (with oak leaf cluster), the Bronze Star Medal, and the Meritorious Service Medal (with three oak leaf clusters).

He is married to the former Beth Gortner, Colonel, ANC, Retired, and has four children: Claire, Alcide, George, and Michelle.

NAVY MEDICAL PROGRAM

Senator STEVENS. Admiral Fisher.

Admiral FISHER. Thank you, Mr. Chairman. Thank you also for inviting the Surgeon General of the Navy to testify today. As you may know, Vice Admiral Koenig made a previous commitment to chair a European Conference on TRICARE, and requested I convey his personal regrets that he could not be here this morning.

I have a brief opening statement, and ask that Admiral Koenig's formal written statement be made a part of the record.

Senator STEVENS. It has been.

Admiral FISHER. Thank you.

I would like to begin today by reiterating the Navy Medical Department's commitment to readiness as we implement unprecedented changes in restructuring our forces to meet the fast-approaching challenges of the 21st century. Keeping our sailors and marines healthy, on their jobs, and with their units has been and will continue to be the focus of all of our efforts and our true north.

The best support Navy medicine can give to military operational commanders is the speedy return of their people to their units. This means delivering health care as close as possible to where our sailors and marines are working, at the deck plates. We do not move patients through echelons of care unless absolutely necessary to get them well. Every time this happens unnecessarily it drives up costs and takes sailors and marines away from their workplace, and potentially degrades their units' mission effectiveness. We are leveraging available technologies to improve health services to sailors and marines. We are moving information, not people.

By making efficient use of our resources, we are exploding emerging telemedicine technologies in the shipboard environment in ways that have never been done before. TRICARE implementation is enabling us to seamlessly integrate disease prevention and health promotion into all aspects of our health care system; however, as we continue implementation of TRICARE, Navy medicine has two overriding concerns. First is the challenge we face as we assist our beneficiaries in their understanding of TRICARE; and second, care of our Medicare-eligible beneficiaries, often called duel eligibles, is an increasingly difficult challenge.

Mr. Chairman, we are especially proud of the advances we have made over the past several years in our utilization management program; however, we have squeezed utilization management in Navy medicine about as hard as we can at this point. Budget pressures to save additional funds through further utilization management may shorten length of stay for those who may actually benefit from a longer stay, and may deny admission to needed in-patient care to many of our beneficiaries who count on us. This could lead to justifiable criticism of our managed care efforts similar to those we are hearing from the civilian sector.

I am especially concerned for our Medicare-eligible beneficiaries, because, as you know, many of them did not enroll in part B of

Medicare. They were relying on military medical facilities to provide their care because they truly believed the facilities would always be there.

In summary, with the continued strong support received from this committee, Navy medicine's heritage of service to the fleet and fleet marine force remains our true north. Mr. Chairman and Senator Inouye, I would like to take this opportunity to publicly thank you for all of your efforts on behalf of the military medical system, and especially for your proposals that led to the change allowing all eligible candidates to compete for promotion to the grade of major general or rear admiral in the services' medical departments.

My standing here before you is proof that Navy and our Surgeon General, Admiral Koenig, are in agreement with that concept. Needless to say, I am proud to represent the Navy Surgeon General, the Navy Medical Department, and the dedicated men and women of Navy medicine.

PREPARED STATEMENT

I would be pleased to answer any questions you or members of the committee may have. Thank you.

Senator STEVENS. Thank you, Admiral.

[The statement follows:]

PREPARED STATEMENT OF VICE ADM. HAROLD M. KOENIG, SURGEON GENERAL, MEDICAL CORPS, U.S. NAVY

INTRODUCTION

Mr. Chairman, thank you for the privilege of testifying today on the vision and goals of Navy Medicine. I am proud to be at the helm of the Navy Medical Department as we implement the unprecedented changes required to restructure our force and meet the fast-approaching challenges of the 21st century. Navy Medicine's strategic plan, entitled "Journey to Excellence: Meeting the Challenges of the Future", will serve as Navy Medicine's guide as we re-engineer to improve every facet of our organization. To respond to today's environment of change, I have directed the Navy Medical Department to focus on five overarching priorities that pervade every area of our responsibilities: (1) readiness, (2) people, (3) technology,(4) stewardship, and (5) the health benefit. I will address each in turn, but first I would like to tell you and the Committee about the medical department on board the U.S.S. *George Washington* [CVN 73], where tomorrow's vision is quickly becoming today's reality.

The U.S.S. *George Washington* is exploiting emerging communication and diagnostic technologies in the shipboard environment in ways we have never done before. Picture, if you will, a typical morning in "sick bay". A 35 year old chief petty officer reports with moderately severe abdominal pain which mimics several potentially catastrophic diagnoses. Using Tele-Ultrasound, the attending physician is able to transmit real-time ultrasound video back to a radiologist at the Naval Medical Center [NMC], Portsmouth, VA, several hundred miles to the west. NMC Portsmouth confirms a diagnosis of acute cholecystitis. The patient can be treated conservatively for a time with antibiotics, fluids, and rest, avoiding a surgical procedure or a costly, mission-degrading medical evacuation.

A short time later, a call comes in from the Independent Duty Corpsman [IDC] on the USS BARRY, part of the U.S.S. *George Washington's* battle group. He needs to consult with the carrier's Senior Medical Officer about a patient with a leg infection. Using Tele-Consult, the IDC transmits full color images of the patient's leg to the U.S.S. *George Washington*. The technology allows the physician to "see" the patient. A diagnosis of cellulitis is made and a treatment plan is discussed. The IDC informs his Commanding Officer that the case is manageable at the present time and he will continue to monitor his patient with the Senior Medical Officer's assistance. Later in the day, the IDC again uses Tele-Consult, this time for a previously scheduled routine training session on the treatment of eye injuries.

Back on the U.S.S. *George Washington*, the X-ray Department has had a very busy morning, seeing a sailor with a suspected fracture and several others with various respiratory ailments. The staff is using Computed Radiology, a filmless system which produces images in 20 seconds, and allows the physician to digitally enhance the image for clarification. The resulting images can be transmitted to one of the Navy's teaching hospitals for immediate or routine review by a radiologist, as appropriate to the situation. Tremendous cost savings are made in time, reduced rework, and avoidance of hazardous chemical disposal and silver recovery—all part of the more traditional X-ray procedures. Most importantly, Sailors and Marines are returned to their worksites quicker, ready to resume their role in the ship's operation.

Later in the day, a Sailor with a severely injured finger is brought to sickbay by her co-workers. The carrier's surgeon uses the Tele-Consult technology to seek advice from an orthopedic surgeon at NMC Portsmouth on the possibility of saving the finger. The orthopedist guides the resulting surgical procedure to minimize the loss of function and save as much of the finger as possible. Instead of sending the patient to the specialist, the expertise of the specialist has been brought to the patient.

Throughout the day, the Composite Health Care System [CHCS] assists the medical staff in tracking medical specimens and bar coding patient records for the thousands of Sailors and Marines aboard the ship. During a brief lull in patient activity, the Senior Medical Officer accesses the Internet to keep in touch with his homeport military treatment facility and to report interesting cases to the teaching staff there.

As you can clearly see, the U.S.S. *George Washington* is an excellent example of leveraging technology, improving health services to our Sailors and Marines, making efficient use of limited resources, and keeping primary focus on Navy Medicine's reason for existence, the readiness of the nation's military forces. The men and women of Navy Medicine, whether serving at sea, with the Fleet Marine Force, or in a hospital or clinic setting, have never been more committed to excellence. Readiness has been and will continue to be the focus of all our efforts, our "True North".

READINESS

Readiness means keeping our Sailors and Marines healthy and on their jobs. The best support we can give to the military operational commanders is the speedy return of their people to their units. This means delivering health care as close as possible to where our Sailors and Marines are working, "at the deckplate", using the appropriate mix of providers and technology. Patients should not be moved through echelons of care unless absolutely necessary to get them well. Every time this happens unnecessarily, it drives up costs and takes Sailors and Marines away from their workplace and potentially degrades their units' mission effectiveness. In the future, our providers—not just physicians, but also other highly trained providers such as nurse practitioners, physician assistants, and independent duty corpsmen—will be delivering the health care benefit in clinics and with the operating forces directly. Our Hospital Corpsmen are the cornerstone of the Navy health care system. They will be the first point of contact for our Sailors and Marines who need medical care.

A prime example of taking care to the deckplates is occurring at the Naval Academy where Navy hospital corpsmen are now assigned to every battalion to hold sickcall for the Midshipmen every morning in Bancroft Hall, before classes begin. Over 90 percent of the Midshipmen's health care needs are taken care of by the Corpsmen. Only those Midshipmen that absolutely need to take time out of their academic day to visit a provider at the Naval Medical Clinic Annapolis have to do so. This reduces clinic waiting time for others and keeps Midshipmen doing what they are at the Naval Academy for, learning to be good Navy and Marine Corps officers. This approach to health care delivery at the deck plates has been so successful that we have exported it to our enlisted accession points at Parris Island, San Diego and Great Lakes. We are teaching our future Sailors and Marines that our Hospital Corpsmen are their point of entry into our health care system. All are learning that corpsmen are truly the cornerstone of the Navy Medical care team. Recently, one Hospital Corpsman at Marine Corps Recruit Depot, San Diego, told me that he was so excited about being a "real corpsman" that he couldn't sleep at night. This tells me we are moving in the right direction.

Dental care is now being provided pierside to our Sailors at many of our bases from specially equipped vans. We are making use of a mobile van outfitted with optical fabrication equipment to make glasses directly at the customers' worksite. We have also developed a Mobile Hearing Conservation Audiometric Truck, or "MOHCAT" for short, that can drive up to a pier or hangar and provide hearing tests for about 80 patients a day. In every case, we want to minimize the time the service member is away from his or her unit, thus maximizing availability for their readiness roles.

Navy Dentistry's principal focus is operational readiness of our active duty personnel. They use a measurable system to assess readiness and a prioritized, team approach to maintain or achieve optimum levels. Their managed care program, which begins in boot camp, is called Phased Dentistry and ensures the first priority for care is given to personnel with potential mission compromising conditions. This very successful approach to care, along with an aggressive recall program, has enabled Navy Dentistry to satisfy the dental readiness requirements of the operational forces and be recognized as a leader in the commitment to overall readiness.

The Navy Nurse Corps is also actively engaged in pursuing operational readiness. In cooperation with the Army and Air Force, military nurses have developed tri-service operational readiness training courses. Naval Hospitals Guam and Sigonella have hosted Trauma Nursing Core Courses for tri-service participants in the Far East and European theaters. Our Nursing Research studies, benefiting from a number of years of strong Congressional support, are also aimed at improving readiness with research topics ranging from techniques in wound healing to women's health issues at sea.

We can't think of readiness and resources without thinking of our Reserves. Readiness training for Navy Medical Reservists and the health readiness status of the entire Naval Reserve Force are top priorities. When our fleet hospitals deployed to Zagreb and Guantanamo Bay, our Reservists were there. Reservists proved their value as part of the Navy medical team when they backfilled at our stateside hospitals after our active duty medical personnel were deployed to Cuba. Continuing the tradition of superb service to the fleet, reserve Dental support proved to be a significant factor in reducing access time for family member dental care at Yokosuka, Japan, from six months to one month while maintaining operational readiness requirements of the active duty forces.

In 1995, the Navy/Marine Corps team responded to numerous contingency operations around the world. In each case, Navy Medicine played a key supportive role. From the Caribbean to Bosnia, Navy Medicine provided health services and comfort to further U.S. national interests. We supported our Sailors and Marines in Operation PROVIDE PROMISE, Operation FULL ACCOUNTING, Operations ABLE VIGIL and SEA SIGNAL, Operation JOINT ENDEAVOR, and Operation GREEN CLOVER. Our Navy Mobile Medical Augmentation Readiness Teams [MMART] also participated in numerous exercises and operations other than war scenarios.

Readiness for the Navy Medical Department means having the right people, with the right training and the right equipment, in the right place at the right time. During the past two years, Navy Medical Service Corps officers have developed a planning tool, the Total Health Care Support Readiness Requirement [THCSRR], to calculate the minimum manpower resources required to deliver high-quality health care to the operational forces of the Fleet and Fleet Marine Forces. In addition, the THCSRR has a sustainment component to provide for a continuous flow of qualified personnel into the operational forces and overseas activities as people attrite either from the Navy or from their current skill level and move to a higher skill level. In the past year, Reserve requirements have also been integrated into the THCSRR to provide a total force picture of our manpower needs.

The THCSRR addresses the pressures for restructuring our medical force as a data-driven model that meets both parts of the readiness mission: (1) our wartime requirements to support two nearly simultaneous major regional conflicts [MRC's], and (2) the day-to-day operational health care requirement in support of deployed Department of the Navy units, overseas and isolated US medical and dental treatment facilities, and the necessary training and rotation base. Our efforts have been so well received by the medical planners within DOD, that the Army, and Air Force are developing their own versions of the THCSRR model. I am convinced that implementation of THCSRR is the best solution to balancing wartime, readiness, and contingency requirements, with providing health care as a benefit-of-employment to our Sailors, Marines, their families, survivors and retirees and their families.

PEOPLE

The Navy Medical Department views our people as our most important resource. The combined efforts of our active duty members, their Reserve counterparts, and our superb civilian employees have created a medical system that we feel is the best in the nation.

My goal is to stimulate and enable each and every individual in Navy Medicine to reach his or her full potential by providing the very best opportunities for professional and personal growth. Navy Medicine's ability to meet our readiness and peacetime health care missions in the 21st century rests on two broad principles: (1) we will retain the best of the people we recruit, and (2) the best people will want to remain a part of Navy Medicine because of the challenge, training, professionalism, and overall environment Navy Medicine fosters.

One of our most important strategies in caring for our people is to provide them with training for their day-to-day jobs, their operational roles, and their professional development. We are committed to pursuing all avenues that stimulate and enable every member of our department to reach their full potential for professional and personal growth. The 7,600 hospital corpsmen and dental technicians engaged in nationally accredited training programs during fiscal year 1995 are proof of our commitment.

Our graduate medical education [GME] programs are also an essential element of the Military Health Services System. In consonance with overall restructuring of personnel assets, we have affected a cumulative reduction of 94 GME training billets over the next four years by decreasing or eliminating billets in some training programs where we feel we were training in excess of the requirement or other resources were available to us at much lower cost. The third annual Joint Service GME Selection Board, convened in November 1995, completely filled all 27 Navy-specific training programs and selected its first classes of tri-service trainees for ten newly integrated joint service programs.

As we restructure our training requirements and practices, we are looking at ways to better utilize our residency trained physicians. One of the areas that we are looking into is the use of General Medical Officers [GMO's] on our larger ships, such as large deck amphibious ships [LHA's and LHD's] and command and control ships [LCC's]. With the practice of medicine becoming more complex, we realize the need to transition from GMO's to residency trained physicians on these platforms. Assigning physicians trained in pediatrics, family practice, internal medicine and emergency medicine will enhance significantly the medical capabilities on these larger ships.

We continually monitor and refine recruitment and retention incentives to attract and retain the best qualified health care professionals. Some specialties, including obstetricians/gynecologists, family practice, orthopedists, physicians assistants, nurse anesthetists, nurse practitioners, nurse midwives, and primary care dental officers, remain areas of concern. Prior Congressional support for the effective use of Navy Reserve Officers' Training Corps [NROTC] Scholarship Programs to acquire nurse corps officers has been extremely helpful. This program remains the single most important source of new accessions for the Navy Nurse Corps.

In an effort to attract and retain quality dentists, the student marketplace is being targeted with increased numbers of health professions scholarships which would eliminate the substantial educational debt faced by dental students. It is anticipated the scholarship program should help to balance and stabilize Navy Dentistry's force structure by fiscal year 2002. We must continue to allocate scholarship dollars from the Defense Health Program [DHP] and Reserve Personnel, Navy [RPN] accounts to recruit and retain quality dental officers.

Navy Medicine fully recognizes that health and medical services are important contributors to Quality of Life for service members and their families. Navy Medicine's contribution to improving the quality of life of Marines, Sailors, and their families rests primarily on providing access to health care and on helping them achieve a healthy lifestyle. We are committed to providing our active duty members and their families with preventive medical and dental services. Our goal is to seamlessly integrate disease prevention and health promotion into all aspects of our health care system. In addition, the Navy Medical Department remains committed to supporting critical programs that enhance the quality of life for our service members and their families, such as drop off child care availability for parents when they need care at our medical facilities, improving our Alcohol Rehabilitation Program, moving it rapidly toward a true continuum of care, the Family Advocacy Program, the Exceptional Family Member Program, and the four Zachary and Elizabeth Fisher Houses operated at Naval Medical Centers.

Of course, the utilization of our people is enhanced with good manpower planning tools. The Navy Dental Corps is using a rational, total force manpower management decision support system to assist with managing peacetime active duty and civilian dental manpower. By using a customized database, the Dental Corps developed a formal method to collect ideas from numerous professional sources and process that information with command requirement data to formulate global and local manpower planning. Because of Navy Dentistry personnel constraints, the Dental Manpower System [DMS] is an essential tool used for planning. The DMS provides guidance for personnel assignment by prioritizing community authorizations and simulating various scenarios to determine shifts in distribution patterns.

TECHNOLOGY

Navy Medicine continues to implement advanced technologies through research endeavors that benefit and enhance the readiness and capabilities of Naval and Marine Corps operational forces. Our technology program is strongly focused on our defined mission requirements for operational medicine, safety, casualty care, and health care at the deckplates. Our research staff is constantly in touch with our customers and users across the Navy and Marine Corps operational spectrum to ensure that rapidly developing new equipment, procedures, and techniques are expeditiously and effectively included in warfighting and medical support capabilities. Foremost in these endeavors is the adoption and development of standardized hardware and software architecture that will enable transmission of information to any site where Navy Medicine provides care and to ensure that our system is compatible with other DOD systems.

Navy Medicine continues to explore the utilization of telemedicine, digital communications, advanced computer-based medical expert systems, and unique biomedical care and treatment approaches that bring information and care capabilities to our various platforms. Future medical support capabilities will not rely on large, fixed theater hospitals and massive logistical support, but will be based on preventive medicine interventions, safety, medical informatics, health sustainment, and advanced casualty care concepts. These new interventions and concepts are transforming traditional doctrines for platform and theater medical training, support, and casualty care. In the future, medical personnel will be trained in virtual operational environments, and safety and preventive medicine concepts that will continuously enhance health maintenance. Advanced techniques for resuscitation and life sustainment will permit casualty stabilization with minimal medical support and evacuation of casualties to CONUS facilities for definitive care.

Navy biomedical research and development programs that impact warfighting operational platforms, as well as medical support capabilities, continue to demonstrate outstanding progress towards enhancing medical care, safety, and performance for our forces. Our research and development programs cover a broad range of topics in support of operational requirements, including use of telemedicine, health promotion assessments, occupational/operational toxicology, Defense Women's Health issues, and Gulf War Syndrome. These programs are innovative and will have dramatic impact on our readiness and mission capabilities.

Other programs having both strong Navy relevance and civilian application, such as Marrow Donor and Breast Cancer research, are also making a difference to our Sailors, Marines, and their families. In 1985, the Navy was selected to establish a National Bone Marrow Transplant Registry based on its recognized expertise in bone marrow transplantation research. Today the DOD C.W. Young Marrow Donor Recruitment and Research Program serves as the coordinating link for the National Marrow Donor Program, over 100 donor centers, approximately 80 hospital based transplant centers, 20 typing laboratories, and participating international marrow donor registries.

The Breast Care Center at National Naval Medical Center, Bethesda, a breast cancer center of excellence, was recently opened offering innovative approaches to patient care, education, and research with emphasis on detection of breast cancer in younger women. One of the primary goals of the center is to reduce the period of anxious waiting between the time a problem is suspected until definitive diagnosis is made. The Center coordinates with radiology and pathology to compress into a few days a process that in the past required several weeks. A nurse case manager ensures complete coordination of the many distinct services required for treatment, such as surgery, radiation, chemotherapy, physical therapy and social services to provide a full range of rehabilitative support for patients diagnosed with breast cancer.

The staff of the Breast Care Center recognizes the importance of education, both for patients and their providers. A substantial array of teaching aids, printed material, videos, and Internet access are available to assist those afflicted with this terrible disease to fully understand the treatment options available. The training of medical personnel in specialized methods of early detection and treatment of breast cancer is another very important mission of the Breast Care Center. Medical students, nurse practitioners, and physicians from the National Capital Area, as well as from distant medical treatment facilities, will benefit from the expertise of the Center's staff.

In addition to establishing a program to identify patients at greater risk of cancer, the Breast Care Center staff is examining the potential of digital mammography to assist in the early detection of cancer in young women. Clinical research is underway or in the planning stages with other leading breast cancer research centers in the United States, including the National Cancer Institute. The potential for collaboration has been enhanced by working with the Advanced Research Projects Agency to develop innovative uses of information systems technology to link the Breast Care Center with other institutions. By conducting collaborative research, maintaining a strong commitment to education, and providing compassionate patient care, I expect the Breast Care Center to become a major contributor to our nation's fight against breast cancer.

We anticipate that through re-engineering and the application of new technologies, we will find the greatest opportunities for improvement. The innovative application of a broad variety of available information technologies plays a major role in this re-engineering. The Naval Medical Information Management Center [NMIMC] is leading the way in the application of information technology, most notably with the Composite Health Care System [CHCS]. The deployment of CHCS has, for the Navy, increased customer service to our beneficiaries who receive medical care in our Naval hospitals and clinics. The Navy is the executive agent for CHCS and is overseeing the implementation and operation of the system for all military services. Installation of CHCS is nearing completion in all military medical facilities in the United States and Europe and ultimately will have more than 50,000 users, including the fleet. CHCS is also being installed in a number of our dental clinics worldwide, especially in areas where military medical and dental facilities are colocated, or are in close proximity.

As I mentioned previously, CHCS is already up and running on the U.S.S. *George Washington* and we plan to incorporate CHCS, along with our telemedicine technology, into large deck amphibious landing ships in the near future. We are also making a concerted effort to increase pierside CHCS connectivity to improve our ability to deliver care at the deckplates and keep Sailors and Marines at work. Our shipboard physicians and corpsman are clamoring for this support.

Although CHCS deployment is nearly completed, our progress in proliferating CHCS is matched by the challenges ahead as we need to move from today's system to the system of tomorrow, incorporating the new technologies which will provide telemedicine and computer based patient record capability worldwide.

New technology has enabled us to deliver medical support, specialty care and training to remote regions of the globe and to the ships at sea. We are conducting technology-training in homeports and aboard ships and stations instead of in the formal classroom and are extensively using teleconferencing to reduce travel and per diem costs as well as time away from the job. As the infrastructure for electronic communication throughout the Navy becomes available, we are making increasing use of teletraining technology to provide live interactive training to Medical Department and other Navy personnel at their job sites.

Significant advances have been made in the development of performance indicators and data driven decision making processes. The Dental Corps' information system, DENMIS, when fully operational, will allow the tracking of patient treatment needs. Managerial decisions will be made on the basis of actual unmet treatment requirements rather than relying on historical workload data. At the clinical level, DENMIS provides real-time patient needs data that can be used to schedule local resources and better manage the treatment of patients. The system will also permit dental readiness data of units and catchment areas to be monitored at all levels of management.

Lastly, we are also focusing attention on the development and deployment of digital management information systems. Navy Medicine is the Executive Agent [EA] for the Defense Dental Standard System [DDSS], a system designed to bring information automation to the provider level, including computerized patient records [CPR], electronic scheduling, and digital imaging technologies. Nurses at Naval Medical Center, Portsmouth, VA, are involved in the DOD prototype testing of the Ambulatory Data System [ADS], a forms-based data collection tool. ADS captures pertinent data about health care encounters which can be analyzed and used in clinic management, billing third-party payers, in managing care of various populations, and in comparing outcomes of care with that of non-military CHAMPUS providers.

STEWARDSHIP

As Surgeon General of the Navy, stewardship is always a major consideration as we allocate resources, re-engineer and rightsize our medical department. Central to this perspective is the premise of constant evaluation and continual improvement in the provision of health care. Whether we are examining causes for long wait times at the records office or reasons for unplanned returns to the operating room, the use of quantitative, industrial engineering methods to evaluate our systems of care helps us facilitate managerial decision making and allow us to care for our beneficiaries in a more efficient, cost effective manner. Our focus is on the organization and alignment of our resources. Our challenge is to redesign the processes we use in delivering health care so that we achieve the optimal patient care system, while consuming the least amount of resources. We utilize data driven control systems to confirm that our plans are consistently executed.

At Naval Hospital Camp Lejeune and the National Naval Medical Center in Bethesda, we are piloting the application of commercial, provider-specific, productivity-driven clinical pathways. These pathways are based on the practices currently conducted by the hospital that are shown through analysis to be most effective and efficient. In so doing, the hospital will be left with a set of proven pathways that are critical to their core business, as well as having developed experience in the process of pathway development. Once this process has been perfected we intend to spread it across all of Navy Medicine.

At Naval Hospital Millington we are developing a template to help our facilities identify critical success factors for re-engineering initiatives. This project explores business practice issues that include patient population demographics, the principal areas of care provided both to inpatients and ambulatory patients, the significant factors contributing to the consumption of ancillary services, the facility's readiness status as well as progress in defining critical success factors and in measuring accomplishment of those factors. This approach will also help identify obstacles the system has in place so that we can take actions to remove them.

To date we have reduced headquarters ceiling and infrastructure, and combined training policy and management under a single Bureau of Medicine and Surgery Assistant Chief. Additionally, we have consolidated responsibility for operational readiness training, empowerment of schools, and consolidation of training at areas of Fleet concentrations. In September 1995, we dis-established the Naval Health Sciences Education and Training Command and consolidated technical training at Fleet concentration areas in Portsmouth, VA and San Diego, CA. We will proceed with further infrastructure reduction by consolidating our basic Hospital Corpsman technician schools at Hospital Corps School, Great Lakes, IL.

The Navy continues to serve as the permanent chair of the Health Care Committee [HCC] of the Interservice Training Review Organization [ITRO]. Working in close cooperation with the Office of the Assistant Secretary of Defense, Health Affairs, the three services are examining every possibility for consolidating programs. Some major efforts are underway that will promote interoperability of personnel, save resources through consolidation, and maintain the capability of meeting service-specific requirements. The ITRO is determining if tri-service consolidation of advanced technical schools is feasible and cost effective. Currently, twenty Navy technician schools are bi-or tri-service consolidated, eight officer and enlisted training programs have been approved for tri-service consolidation, and 16 other officer and enlisted programs are under further review for possible consolidation.

For the past several years, resource sharing has been an essential element of Navy Medicine's stewardship responsibility. Since 1982, we have actively worked with the Veteran's Administration to achieve joint efficiencies. VA/DOD sharing efforts include cooperation in day-to-day operations, contingency operations, worldwide fixed and deployable medical treatment facilities, humanitarian missions, and joint armed forces scenarios, as well as research and educational centers. Interservice cooperation is also being enhanced through the Lead Agent structure as part of TRICARE implementation, the DOD mail order pharmacy program, the Pharmacoeconomic Center and Tri-service Formulary, the Armed Services Blood Program, interactive telemedicine and field capability, and other medical research initiatives.

Logistic planning and execution is also high on our list of management improvements. In 1995, the first logistics fellowship program was established by the Director, Medical Service Corps and the Surgeon General's Specialty Leader for Materiel Logistics. The twelve month program emphasizes evolving business practices, such as technology integration, facility design innovations, and health care contracting, and will guarantee capable people are operating our facilities on the edge of emerging business concepts.

Building on our successes with the Prime Vendor program in our stateside and overseas medical facilities, the medical components of the Marine Corps have recently implemented a pharmacy Prime Vendor contract at Camp Lejeune, NC. The Prime Vendor program is also being expanded to the Blunt Island Command in Jacksonville, FL as part of the Maritime Prepositioned Force [MPF] operation. The program is also well on its way to being implemented to support the Marines at Camp Pendleton, CA. The Prime Vendor program is an example of "over the horizon" logistics planning and is part of the strategic goals and plans of the Navy Medical Logistics Strategic Plan.

HEALTH BENEFIT

Rapidly rising health care costs and the closure of military bases, along with their hospitals, require that we look for new ways to provide our health benefit. As you are certainly aware, TRICARE is the Department of Defense response to these challenges.

TRICARE is structured around four management strategies designed to provide Medical Treatment Facility [MTF] commanders the tools, authority and flexibility to better manage the delivery of health care to their beneficiaries. These strategies are: (1) division of the Military Health Services System [MHSS] into 12 health services regions; (2) development of standard managed care options; (3) transition to capitation-based resource allocation; and (4) transition to fixed-priced managed care support contracts.

Within the constructs of TRICARE, my goal for Navy Medicine is to establish a vertically integrated health care system that meets the needs and expectations of our customers, so they get the care they need to maintain or restore health at the most appropriate level of care, based on the principles and techniques of managed care. I am confident that the TRICARE program will provide a health benefit that improves beneficiary access, assures high-quality health services, preserves choice for all non-active duty participants, and contains overall health care costs.

The main challenge most of our beneficiaries will face as they first encounter TRICARE is understanding it. To help them accomplish this, here is what we have done so far: TRICARE articles have appeared over the last several months in a number of military publications, including All Hands, Marines Magazine, Shift Colors, Retired Marine, and Lifeline to explain the current benefit and changes that occur when TRICARE is implemented. At the end of January, I was given the opportunity to address the Navy's senior leadership on the TRICARE program. I presented a standard, but comprehensive, TRICARE brief that I have since sent to Commanding Officers at each of the Navy's medical and dental facilities for further dissemination locally. My headquarters staff is tracking how well we are doing in getting out the word to individual Navy and Marine Corps commands.

Once our beneficiaries understand the options available to them with their new TRICARE health benefit, they will find it much easier to decide which TRICARE option, Prime [HMO], Extra (Preferred Provider), or Standard (Standard CHAMPUS), is best for them. The Chief of Naval Operations, The Chief of Naval Personnel, The Commandant of the Marine Corps, Deputy Chief of Staff for Manpower and Reserve Affairs and I are committed to a program of education to help our beneficiaries fully understand the TRICARE benefit so each individual can make informed choices based on desired level of access and cost.

We continue to evolve TRICARE in our efforts to make it the best health care plan in the country. Still, there remains one significant issue: care for our Medicare-eligible beneficiaries, often called "dual eligibles". There are several options for resolving this issue. One alternative is to allow these patients to continue on a space available basis in our military medical facilities. However, space is becoming less and less available as our medical facilities are closed and as the competition for military medical facility access increases.

A second alternative is to have HCFA reimburse DOD for those dual eligibles who enroll in TRICARE Prime. Discussions are currently underway within the Administration to determine the feasibility of a demonstration where DOD would maintain its current level of effort and would then turn to HCFA to cover additional dual-eligible beneficiaries who choose to enroll in TRICARE Prime.

A third alternative would be for DOD to continue to pay for medical care for Medicare eligibles. We continue to provide space available care to a growing number of our beneficiaries who are Medicare eligible. However, providing care under TRICARE for these beneficiaries could be excessively costly to DOD.

Today, Medicare-eligible military retirees continue to receive care in military treatment facilities on a space available basis. We are doing everything we can to help these people get the health care they need and deserve. They may use our health care finders to access TRICARE providers who accept Medicare assignment. Medicare-eligible military retirees and family members, adversely impacted by BRAC action and with a demonstrated reliance on a BRAC facility, may use the mail order and retail pharmacy programs such as those provided by the regional Managed Care Support Contract. In the Navy, we have instituted a new policy in dealing with all of our beneficiaries that I hope will really help these dual-eligible folks. We have done away with waiting lists. When a beneficiary requests a service from us, if we can't give them an appointment in the direct care system, we help them find their way to care in the highest quality, most cost-effective way from alternative sources.

Oral health is an essential factor in the wellness of the active forces and a high priority "quality of life" issue for our family members. The goal of our dental health care benefit is access for all beneficiaries to a health care system that allows them to attain a condition of overall oral health. The TRICARE Family Member Dental Plan [TFMDP] extends affordable, government subsidized dental insurance coverage to eligible beneficiaries in CONUS, Guam, Puerto Rico, the U.S. Virgin Islands and Canada. Currently, 89 percent of eligible Navy and Marine Corps families are enrolled in the Plan. Family members residing overseas are provided dental care on a "space-guaranteed" basis at the nearest military dental treatment facility through the recent implementation of the OCONUS Family Member Dental Program. To furnish the necessary level of providers to supply dental care, active duty billets have been transferred from the continental United States to overseas sites and backfilled with contract dentists and dental technicians.

In the area of quality improvement, I am proud of the Navy's Central Credentialing and Privileging Activity [CCPA] in Jacksonville, Florida, which was established to ensure that our reserve health care providers are privileged to provide care to our troops in the event of deployment. CCPA verifies the clinical credentials and the current clinical competence of all Navy Selected Reserve providers and is being expanded to include all Department of the Navy active duty providers.

We are also in the process of establishing a skill-based privileging system for the management of competencies of all Department of Navy practitioners. This management system will provide an accurate picture of the practitioners' current skills and allow us to tailor assignments to operational and direct care needs. It will link to our readiness requirements and our direct care capacities. This initiative will build on the CCPA to allow central, automated evaluation of the available skill pool for training and assignment of personnel. It will maximize the capability of the privileging system as a quality management system.

CONCLUSION

As the Navy's 32nd Surgeon General, I am committed to building on the Navy Medical Department's heritage of service to the Fleet and Fleet Marine Force. Readiness remains at the very center of all our efforts as Navy Medicine responds to today's environment of rapid change, changing priorities, regional conflicts and disasters, and diminishing resources.

Readiness means to me: keeping our Sailors and Marines healthy and where they belong—on their jobs; moving information not people; taking care to the deckplates.

The thinking behind all of this is to keep our Sailors and Marines as close to their mission as possible, whether their work is aboard ship, in the United States, overseas, or in a training environment.

With the strong support received from you and your Committee, TRICARE is well underway and working. Marketing is the key to successful implementation of the TRICARE managed support contracts. Navy Medicine is making a concerted effort to educate our patients about their health care choices and responsibilities. I am confident that TRICARE is the very best solution for providing a comprehensive health benefit to our Sailors, Marines, their families, survivors and retirees and their families.

Mr. Chairman, I am proud to represent the dedicated men and women of Navy Medicine before you today. I would be pleased to answer any questions you or members of the Committee may have. Thank you.

Biographical Sketch of Vice Adm. Harold M. Koenig

Vice Admiral Koenig became the thirty-second Surgeon General of the Navy and Chief, Bureau of Medicine and Surgery, on June 29, 1995.

A native of Salinas, California, he graduated from high school in 1958. He attended the U.S. Naval Academy and received his Bachelor of Science Degree from Brigham Young University. He received his Medical Degree from Baylor University College of Medicine. He is certified by the American Board of Pediatrics in general pediatrics and pediatric hematology-oncology.

Vice Admiral Koenig advanced to Diplomate of the American College of Healthcare Executives in February 1995. He received "The 1994 Federal Health Care Executive Award for Excellence" from the American Hospital Association in March 1995.

Vice Admiral Koenig has served as a general medical officer, residency training program director, department chairman, and director of medical services. In June 1984, he became executive officer of Naval Hospital Portsmouth, VA. From July 1985 through June 1987, he was commanding officer, Naval Hospital, San Diego, CA. He assumed command of Naval Health Sciences Education and Training Command, Bethesda, MD, in July 1987. His staff tours included positions as Director, Health Care Operations in the Office of the Chief of Naval Operations, and Deputy Assistant Secretary of Defense (Health Affairs) for Health Services Operations. Vice Admiral Koenig served as Deputy Surgeon General of the Navy from July 1994 to June 1995.

Vice Admiral Koenig's personal awards include the Defense Superior Service Medal, Legion of Merit with Gold Star, Meritorious Service Medal with Gold Star, Navy Commendation Medal, and the Navy Achievement Medal.

Vice Admiral Koenig is married to Deena (Prescott, of Houston, TX). They have three sons in the Navy: Steven, a Lieutenant; Scott, an Ensign; and Grant, a midshipman at the U.S. Naval Academy.

AIR FORCE MEDICAL PROGRAM

Senator STEVENS. General Anderson.

General ANDERSON. Good morning Mr. Chairman, Senator Inouye. Thank you for the opportunity to address the goals and accomplishments of the Air Force Medical Service as we support the greatest Air Force this world has ever known. This morning I would like to offer some brief comments, and have likewise submitted a more detailed testimony for the record.

Nowhere is the expertise, the dedication, the competence, and the motivation more prevalent than on our team of Air Force medics. I am genuinely proud that they put Air Force medicine on the cutting edge, ensuring that the Air Force Medical Service will remain a world leader in the delivery of quality, comprehensive, and compassionate health care.

During 1995, the Air Force Medical Service fully employed Air Force-unique resources, such as our air-transportable hospitals and our air medical evacuation systems. We have experienced a more than 700-percent increase in operational deployments since Operation Desert Storm, supporting global peacetime engagements, U.N. peacekeeping missions, humanitarian relief, and NATO operations. We continue to restructure our medical readiness posture, retaining successful deployment strategies such as our air-transportable hospitals and clinics and our air medical staging facilities.

However, we are redesigning them to make them smaller, make them lighter, make them more mobile, and make them more tailorable to the requirements put forward by the theater CINC's. This increases our ability to respond to contingencies more effectively, whether they be peacetime or wartime, while minimizing our preposition footprint.

We are also adapting our aeromedical evacuation program to support this strategy and to meet the increasing demands in varied geographic areas. Our Reserve component counterparts are absolutely essential to the success of our medical readiness mission. Therefore, we are proud of our progress in implementing our Mirror Force Program, designed to unify Active and Reserve component personnel into a seamless, ready Air Force Medical Service. By working together we found better solutions to our challenges that enable us to truly operate as a total force.

Our most important medical readiness resource will always be our people. We continue to recruit the very highest caliber of health professionals thanks to incentives such as special pays and accession bonuses, the financial assistance program, the health profession scholarship program, and our incomparable graduate medical education program.

The roots of Air Force medicine are found in the direct operational support of our deploying warfighter squadrons. Through the comprehensive program of the U.S. Air Force School of Aerospace Medicine at Brooks Air Force Base in Texas, we have trained world leaders in the practice of aerospace medicine. The expertise of our aerospace medicine specialists has been of limitless value in finding solutions to worldwide human factors problems that threaten the safety and mission success.

I have said many times for the record that our wartime and peacetime missions are inextricably linked. You simply cannot have one without the other. Our peacetime mission is now based on TRICARE. It continues to be successful in providing top quality care to our patients. While we have improved access under TRICARE for many patients, we are still challenged by our inability to provide fully for our Medicare eligible patients who so richly deserve continued access to top quality military health care.

However, I am confident that in working with my service and DOD counterparts and with your support, we will resolve any obstacles remaining to TRICARE's complete success. The cornerstone of both our TRICARE and readiness efforts is disease prevention. Thus, we are deeply committed to our program of building healthy communities through our Air Force initiative that establishes and maintains community-based outreach programs that promote healthy lifestyles. We are proud to be in the vanguard of disease prevention, and we believe strongly that this must be our course for the future.

PREPARED STATEMENT

Finally, I extend my appreciation to the members of this committee for your support for Air Force medicine. With your help, the Air Force Medical Service will continue to be a leader in both military and civilian health care sectors, offering knowledge and solutions to today's challenges that only the unique talents of the Air Force can provide.

Thank you very much. I would look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. EDGAR R. ANDERSON, JR.

Mister Chairman and members of the committee, thank you for this opportunity to address the goals and accomplishments of the Air Force Medical Service [AFMS] as we support the greatest Air Force in the world. Our chief of staff, General Ronald R. Fogleman, recently said, "The warfighting advantages the nation's Air Force brings to the joint table spring from the expertise and dedication of our people and the technological edge we maintain in our force structure. Our well educated, technically competent, and highly motivated men and women are committed to keeping this great nation strong and free."Nowhere is expertise, dedication, competence and motivation more prevalent than on our team of Air Force medics. I am proud that they have put Air Force medicine on the cutting edge, ensuring the AFMS will remain a world leader in the delivery of quality, comprehensive and compassionate health care.

MEDICAL READINESS

During 1995, the AFMS remained fully engaged in support of the National Military Strategy, employing Air Force-unique resources such as our air transportable hospitals [ATH's] and aeromedical evacuation system. In any given month, we had three ATH's deployed and an average of 590 medical personnel deployed supporting operational commitments in approximately 40 countries. This monthly average represents a 180 percent increase over our 1994 deployment figures. In fact, the AFMS has experienced a more than 700 percent increase in operational deployments since Operation DESERT STORM, supporting global peacetime engagements, United Nations peacekeeping missions, humanitarian relief, and NATO operations.

We deployed four ATH's in support of Haitian and Cuban migrant operations at Guantanamo Bay, Cuba, and Cuban migrant and transit operations in Panama. The AFMS supported United Nations Peace Force medical operations at Zagreb, Croatia, by fully staffing the U.S. Hospital Zagreb with ATH deployments from both the 60th Medical Group, Travis AFB, California, and the 74th Medical Group, Wright-Patterson AFB, Ohio. We continue to provide aeromedical evacuation support in the area and are using this opportunity to test our critical care air transport teams. Medical forces also deployed to establish medical staging operations and aeromedical evacuation infrastructures within eastern Africa to support evacuation of United Nations forces from Somalia for Operation UNITED SHIELD.

In the Continental United States, we deployed 15 mental health personnel to Tinker AFB, Oklahoma, to assist with crisis intervention counseling after the bombing of the Oklahoma City Federal Building. As 1995 closed, the AFMS deployed approximately 100 medical personnel to Germany, Italy, Hungary, and Bosnia to establish medical staging operations and aeromedical infrastructure for the Peace Implementation Forces in Bosnia. These forces remain deployed in support of Operation JOINT ENDEAVOR.

In addition, Air Force medical personnel support ongoing rotations in Southwest Asia for Operations PROVIDE COMFORT, SOUTHERN WATCH, and DESERT STORM RECONSTITUTION; in Europe for Operations DENY FLIGHT and PROVIDE PROMISE; in Central America to support theater aeromedical evacuation and counter-drug operations; and in the Pacific to support Operation FULL ACCOUNTING.

Since our last testimony here, we have continued to restructure our medical readiness posture, with the aim of achieving more efficient deployment capabilities as we "right size." We have retained the successful deployment strategies, such as our air transportable hospitals and clinics, and our aeromedical staging facilities. We are, however, redesigning them to be smaller, lighter and more mobile. Currently, we have one test facility that requires one quarter or less of the airlift of the ATH, depending on its configuration. The smallest we have tailored to test consists of 10 beds and fits in one C–141 instead of seven. To assist us in this reengineering effort, we are designing simulation models of our various contingency medical systems and applying operational research techniques to test, validate and refine the new unit-type codes [UTC's]. Simulation modeling will provide us with a defendable, auditable, statistically accurate method to validate contingency medical systems with the appropriate mix of personnel and equipment to provide cost-effective, optimal patient care outcomes.

We are also adapting to the deactivation of most of our contingency hospital program as we reduce our forward medical "footprint." We deactivated approximately 1,800 Intensive Care Unit [ICU] capable beds from the program, and have about 200 prepositioned ICU beds worldwide. We have compensated for the reduction by structuring small ICU bed modules and other modules for worldwide deployment to augment our smaller ATH's. These modules are small enough to fit in one, or less than one, airplane and can be delivered by air anywhere the need arises. We believe this increases our ability to respond to contingencies more effectively, while minimizing the fixed costs of maintaining a large prepositioned footprint. In short, it allows us to deliver the right care at the right place and time.

The Aeromedical Evacuation [AE] system is undergoing changes to adapt to increasing demands in varied geographic areas. The U.S. Transportation Command [TRANSCOM] Regulating, Command, Control, and Evacuation System [TRAC^{2}ES] finishes its first deployable system this spring. This system will allow us to provide patient in-transit visibility and to report on and track patient clinical status. This is especially useful as the patient movement requirement centers at Scott AFB, Illinois, and the theater decide on which available facility and bed best suits a particular patient, minimizing negative patient outcomes. In addition, medical teams will augment the system to provide increased in-transit clinical support when there are situations where the in-place medical infrastructure is undeveloped. As an example, this is necessary at the beginning of a deployment where casualties may arise and medical facilities are lacking or limited.

We have also identified tri-Service standardized equipment for AE, called Patient Movement Items, that reduce duplication. We are establishing deployable kits and regional AE equipment centers that push equipment forward to the points of casualty needs and return it on the next patient pick-up airplane. We gain significant efficiencies by tracking and returning the equipment within the AE system. This eliminates the need for equipment management and reconditioning centers, which are out of the patient airflow, and results in a reduction of requirements and expenditures for buffer stocks.

We have asked the Air Force Air Mobility Command to review the AE patient airlift requirements as we reduce the available airframes. We have identified some potential aircraft of opportunity and are proceeding to redesign Civil Reserve Air Fleet medical inserts, called shipsets, to be adaptable to alternate aircraft. We have contracted for 19 aircraft already, and have added the C–9 fleet to the list of available theater aircraft for casualty evacuation.

Additional concerns center around the potential for biological warfare [BW] and chemical casualties and system contamination. We have identified capabilities that we believe are crucial to minimizing the impacts of BW on our personnel. We are developing a nuclear, biological and chemical team to insert into our bases to monitor health risks and impacts. In addition, we are building another team to provide ongoing in-place epidemiology and prevention activities, and a theater-wide consultant capability that can aggregate, compile and analyze all the data. In the event that casualties arise, we also have an infectious disease team that we will use in central theater locations to manage the casualties in theater, rather than run the risk of evacuating infected patients to clean places and then creating outbreaks of BW agents.

The Air Force Blood Program is a critical element of our medical readiness mission. We continue to ensure our military blood needs will be met in any contingency by working closely with DOD and our sister Services. Recently, DOD completed deployment of the Defense Blood Standard System [DBSS] to all 51 medical blood transfusion, processing and distribution centers and deployed our first theater DBSS in support of Operation JOINT ENDEAVOR. The DBSS tracks key elements in the critical control of blood from collection to transfusion, thereby ensuring the safety of the blood supply and successful historical lookback for potential post-donation or post-transfusion investigation.

Despite the drawdown of active duty personnel, blood requirements in support of the many Operations Other Than War and peacekeeping missions have increased dramatically. Unanticipated requirements are double our routine peacetime requirements. We're pleased that the Air Force was able to meet the quota for collecting and freezing red blood cells to be sent to the Armed Services Whole Blood Processing Laboratory [ASWBPL] for further distribution to the frozen blood storage facilities. As a result of the drawdown, the fewer active duty donors available will cause diminished blood collections, directly affecting the blood products needed for peace, war or contingency. We will have to rely more heavily on collections from the satellite Blood Donor Centers [BDC], which will expand our donor pool. However, we also anticipate that the peacetime use of blood products in the continental United States will decrease as the smaller facilities downsize to "super" outpatient clinics. Of note: The Air Force is the only Service to have registered satellite collection sites aligned under the major host blood collecting/processing facilities licensed by the Food and Drug Administration [FDA]. We will continue with this alignment.

Another initiative that is unique to the Air Force Blood Program is the centralization of viral marker testing of blood collected from all BDC's, both satellite and host, to one FDA-licensed Air Force testing facility. Centralized testing will lower costs and reduce errors, increasing the safety of the blood supply. Other future blood program activities include the standardization of BDC operating instructions under the Air Force FDA license and the implementation and validation of the DOD standardized Digitrax automated blood labeling system. Digitrax is being installed in all licensed facilities. We expect installation, training, validation and implementation to be completed this year.

Air Force medical readiness training continues to improve the programs lauded by the DOD Inspector General in August 1994 as "by far the most effective Military Service initiative." We have consolidated our programs in one instructional reference, and they are managed by one body, the Medical Readiness Training Assessment Committee. This body recently instituted comprehensive semi-annual reviews of formal training programs in support of the DOD Medical Readiness Strategic Plan 2001. Committee representatives also participated in a DOD Health Affairs-sponsored panel to assess the medical readiness training needs of unified commanders. The committee is now working to incorporate the recommendations of this panel into Air Force training programs.

Other initiatives we've undertaken to improve medical readiness training include a consolidation of medical skills courses in support of the Medical Subcommittee of the Interservice Training Review Organization. Also, the AFMS is fielding a prototype relational data base system, the Medical Readiness Decision Support System, which will have the capability to provide real time details on the status of training down to the unit level. Finally, and most importantly, we have undertaken a comprehensive, bottom-up review of medical readiness training to independently assess and ensure the vitality of our programs.

We are proud of our progress in implementing our Mirror Force program, a senior leadership initiative designed to unify active and reserve component personnel into a seamless, ready AFMS. Mirror Force is a combined effort of the active duty Air Force, Air Force Reserve and Air National Guard to optimize medical readiness by identifying issues, planning and integrating capabilities, and implementing change. We have found that having all parties work together under the same charter fosters a better exchange of information and insight into the unique aspects of the Air Reserve Component [ARC] system. This results in better solutions that enable us to truly operate as a Total Force. Mirror Force is aggressively addressing several key issues, such as enlisted training, recruiting and retention in the ARC, streamlining the privileging process for ARC providers in military MTF's, and properly identifying the dental classification of ARC members.

PEOPLE

The most important factor in our medical readiness equation will always be our people. The AFMS continues to attract the highest caliber of health professionals through the outstanding efforts of the U.S. Air Force Recruiting Service. In fiscal year 1995, the Recruiting Service met or exceeded the Biomedical Sciences Corps, Medical Service Corps, Nurse Corps, and scholarship recruiting goals. Medical special pays are having a positive effect on recruiting and retention of physicians, although we still have some difficulty attracting and keeping people in some provider specialties, such as family practice. The Certified Registered Nurse Anesthetist incentive special pay has also helped us to recruit and retain these highly skilled professionals.

The Financial Assistance Program continues to be a resounding success, as it allows us to attract residents in difficult-to-recruit specialties. The Nurse Accession bonus is also a continuing success story, and we are delighted that Congress has extended this program through fiscal year 1997.

We continue to expand the quality transformation of our Graduate Medical Education [GME] program. Along with our sister Services, we are dedicated to maintaining the highest possible quality and efficiency of our GME training programs in this time of budget constraints.

The third tri-Service GME Selection Board conducted the first Joint Service Selection Board. Representatives from the three Services convened 10 panels to select 75 candidates for joint service positions in 10 different integrated GME programs. Inter-Service placement of trainees was a success this year as well. Recognizing the greater demand for primary care physicians as the Military Health Services System evolves into TRICARE, we increased our pool of family practice trainees to meet future needs. We continue to support the use of deferred training programs to augment GME programs as a cost-savings measure.

We are continuing to work with our sister Services to identify GME programs that can be consolidated to eliminate duplication and improve service. We identified 17 GME programs in the San Antonio, Texas, area for integration between the Air Force's Wilford Hall Medical Center and Brooke Army Medical Center. Seven programs have been integrated thus far, with two more programs in 1996, four in 1997, and the final four in 1998. Integration of duplicate programs enhances jointness interoperability and the training experience.

Another training program that we have found successful has been the DOD Psychopharmacology Demonstration Project [PDP], from which the Air Force has graduated one fellow and in which two are in their second year. Although recent legislation has precluded enrollment of additional students, we feel that the program's overall effect has been positive. Patients have been receiving quality care from prescribing psychologists and have been highly satisfied. In fact, at Malcolm Grow Medical Center, Andrews AFB, Maryland, PDP providers have offered expanded services to some family members who otherwise would have been referred to Civilian Health and Medical Program of the Uniformed Services [CHAMPUS] providers for psychotropic medication.

The first Air Force PDP graduate was credentialed in one day, and the first follow-up review by the facility credentials committee revealed no problems or concerns. In addition, evaluation of the program and provider performance by the American College of Neuropharmacology has been positive, especially following its visits to Malcolm Grow. Although current legislation does provide for an evaluation of the program, ensuring sufficient data can be collected to allow a valid evaluation of the concept may be more difficult without additional enrollment.

HEALTH PROMOTION AND DISEASE PREVENTION

The AFMS vision is to build a healthier Air Force community. Among the most effective tools to make this vision a reality are disease prevention, health promotion and fitness. We consider prevention a core value and a way of life. We are moving from "repair-oriented" care delivery to health "maintenance and enhancement" delivery. "Building Healthy Communities" is the name we have given to our Air Force-wide initiative to establish and maintain community-based outreach programs that promote health and facilitate healthy lifestyles. The initiative integrates community and individual responsibilities to reach an optimum state of health and quality of life. Our goal is to leverage this approach to reduce illness, disability and premature death. To meet these goals we established three objectives that are the bedrock of our prevention efforts: (1) Educate Air Force people; (2) Systematically evaluate leading-edge technology and practices; and (3) Implement and manage proven programs.

Prevention is the cornerstone of both our TRICARE and readiness efforts. We have implemented the "Put Prevention Into Practice" [PPIP] initiative to facilitate delivery of preventive health services to all of our beneficiaries. With PPIP we consider every communication and visit with a beneficiary to be an opportunity to deliver prevention. The key aspects of PPIP include immunizations, age-and gender-appropriate screening tests (i.e.: pap smears, cholesterol, mammograms, etc.) and counseling on life-styles and health behaviors (tobacco use, nutrition, exercise, etc.). The PPIP initiative is a nationally proven program that was developed by the Department of Health and Human Services Office of Disease Prevention and Health Promotion, then adapted for Air Force use. Through PPIP we will be able to assist our members, retirees and their families in enhancing their health.

Prevention and evidence-based practice are the organizing principles guiding our effort to build healthier communities. Data-driven policies that emphasize disease prevention, health promotion and optimization of functional status guide our initiatives and programs. To be on the leading edge as we meet this challenge, we have tasked our Office of Prevention and Health Services Assessment [OPHSA], Brooks AFB, Texas, to identify state-of-the-art research and products to facilitate our paradigm shift. OPHSA is undertaking an economic and epidemiological analysis of the "health" of the Air Force. "Healthy Community Metrics" have been identified to measure efficiency, productivity, utilization and quality of life.

OPHSA developed the Health Enrollment and Assessment Review [HEAR] to assist us with identification of the prevention needs of our members. HEAR summarizes the screening tests, health counseling, and immunizations patients require and facilitates delivery of these services. Furthermore, OPHSA is exploring other venues to assist with additional automation of prevention delivery, to provide critical data and to improve performance of our program.

A fit and healthy force is imperative for sustainment of our missions. The Air Force Fitness Program, based on techniques developed by leading civilian exercise physiology and sports medicine experts, continues to improve the health and fitness of our active duty members. Using submaximal cycle ergometry, the program measures "V02 max," the indicator of oxygen use by the body and the best predictor of the ability to work and maintain long-term health. Major improvements in the next year will allow us to deliver this program from our Health And Wellness Centers [HAWC's] under the supervision of trained exercise physiologists. The physiologist will provide tailored counseling and monitoring to help individuals improve their fitness and "Take it to the MAX," or "MAX their V02 max". We have enhanced the cycle ergometry software for better test standardization. A centralized Fitness Program Office at the Armstrong Laboratory, Brooks AFB, Texas, has been established to consolidate research and logistical support, ensuring better customer service, technical expertise and state-of-the-art science.

We are establishing HAWC's on every major Air Force installation. These facilities will serve as one-stop shops for fitness assessment, health risk assessment, tobacco cessation and other health promotion services. As we provide these services to move toward healthier populations, we are exploring 21st Century, knowledge-based systems that support our health-conscious members. We want leverage technology to help beneficiaries enhance their knowledge through empowerment and self-care.

Our Family Advocacy Program [FAP] is a key player in our prevention strategy, as we seek to reduce family violence. The Air Force FAP continues to be the DOD leader in the prevention and treatment of spouse and child abuse. Its evaluation component, unique within both the military and civilian sectors, provides objective measures for programming and resourcing decisions. For example, the Air Force FAP pioneered the innovative and effective First Time Parents Program—this program's demonstrated success led to congressional line-item funding for implementation of new parents support programs DOD-wide.

The FAP provides a comprehensive continuum of prevention programs and services that are reducing the severity of family violence. Our research clearly shows that these interventions with abusive and non-abusive families reduce child abuse potential, reduce distress, and increase family cohesion and marital satisfaction. As we continue to expand the continuum of prevention efforts, we believe we can further reduce the incidence of child and spouse abuse within the Air Force.

As a result of the Air Force FAP's innovation and leadership in the field of domestic violence, our programs are being modeled and implemented in the civilian sector. As we continue to export our technology, we will contribute to the development of healthy and violence-free military and civilian communities.

The Air Force also continues to reap preventive medicine benefits through the efforts of our bioenvironmental engineering community. Unique among the Services, our bioenvironmental engineers [BEE's] serve as the installation focal point for assessing a complex array of potential workplace hazards to include chemicals, noise and radiation. Working closely with our public health, health physics and occupational medicine personnel, our BEE's anticipate, evaluate and control health threats in the workplace to prevent occupationally related illnesses, optimize mission performance and readiness, and ultimately reduce compensation claims and disability payments. Recent initiatives in this regard include the implementation of the Hazardous Materials Pharmacy, which has already paid big dividends through improved tracking and decreased use of hazardous chemicals.

In addition to ensuring a healthy workplace, our BEE's are also critical in ensuring compliance with Occupational Safety and Health Administration [OSHA] and Nuclear Regulatory Commission [NRC] rules and regulations. Their programmatic approach in implementing regulatory requirements pertaining to lead-based paint, radiation, radioactive materials, asbestos, noise and chemical hazards represent a Service and industry benchmark in this important arena.

Similarly, in the environmental arena, our BEE's accomplish comprehensive environmental sampling of air and water to ensure compliance with Environmental Protection Agency [EPA] rules and regulations. In this capacity, they work closely with Air Force civil engineers to incorporate sound science and risk-based decision making into the Air Force Environmental Quality Program.

Prevention is absolutely essential to delivering high quality, accessible and affordable health care. By building healthier Air Force communities, we will facilitate military readiness, and at the same time, foster a healthier, happier, more fit beneficiary population. A key factor in meeting this goal, and one we have devoted increasing effort and resources toward in recent years, is dental care.

We have made significant progress in caring for our families overseas through the Overseas Family Member Dental Program. The plan for Europe was fully implemented by August 1995 and the plan for the Pacific was approved in October 1995, and will be implemented by September this year. These plans consist of three components. The first is an overseas dental screening program for family members not enrolled in the TRICARE Family Member Dental Plan. The second requires the assignment of additional active duty dental personnel to locations in Europe and the Pacific to provide family member care. Third, to continue to meet the dental demands of active duty personnel stateside, contractor-provided dental teams (one dentist and assistant) will be hired to backfill vacant stateside positions created by the active duty dental personnel relocations to overseas positions. An additional 27 dentists and 54 assistants have been assigned to Europe and an additional 23 dentists and 46 assistants will be assigned to selected sites in the Pacific. As a result of this action, the quality of life for service members and their families overseas has been improved significantly by our increased ability to provide quality, accessible dental care.

We applaud Congress' success in authorizing a dental insurance plan for the reserve components. Efforts are already underway to determine the dental needs of reserve component members and to develop a plan that adequately meets their dental needs. Test sites have been identified that will enable us to proceed in finalizing a dental insurance program. This action will greatly enhance our efforts to create a total Mirror Force and will significantly improve the readiness status of the reserve forces.

The Air Force Clinical Investigations Program has played a major role for many years in the disease prevention arena as medical research continues to find new inroads into both clinical and operational health problems. We are particularly proud of our efforts on behalf of the Defense Women's Health Research Program [DWHRP], in which the Air Force is a full player. The goal of this program is to enhance operational effectiveness and sustainability by minimizing health risks and optimizing health care for women in the Armed Forces and to facilitate the full integration of gender-specific considerations into Defense acquisition, force structure, training and operations.

Funds for this research program were identified to support research in Service laboratories and at civilian institutions. Several studies were submitted by investigators addressing both clinical and operational health issues affecting women in the Air Force. Funding for these studies totaled more than $1.4 million with the research addressing operational factors such as female acceleration tolerance, deployment-related stress in women vs. men, female flight suit design and female adaptation and performance at high G. Several additional clinical studies addressed health issues related to the work environment and new operational roles for women. The Air Force is extremely proud of its record of integrating women in all specialty roles and will continue to seek opportunities to perform research necessary to ensure a safe and healthy environment for all service members.

AEROSPACE MEDICINE

The roots of our Air Force Medical Service [AFMS] are found in the direct operational aeromedical support for our deploying warfighter squadrons. This is provided through the squadron medical element, which must sustain its leadership in providing direct care and performance support to our first deployers. This support keeps the fighting force fit and ready for contingencies and enhances mission capability. By maintaining flight status and thus experiencing the operational environments of our warfighters, flight surgeons are able to sustain world leadership through the application of aeromedical knowledge to human systems improvements for Air Force operations. World leadership in this aerospace medicine practice is achieved and sustained through comprehensive training of aerospace medicine specialists at the USAF School of Aerospace Medicine, Brooks AFB, Texas. Recent improvements in the curriculum have provided graduates with world-class expertise in aerospace, occupational and preventive medicine.

Integration of aerospace medical practice with aviation and space operations provides the insight to identify deficiencies and operational problems that require human systems integration or human factors solutions. The AFMS includes a small but important group of pilot-physicians, individuals uniquely qualified to explore solutions for human systems deficiencies. Their input is often critical in the resolution of some of the more difficult problems. Other examples of integration challenges include night vision systems, acceleration protection, wear of contact lenses, fatigue countermeasures, laser eye protection and fitness for duty determinations.

The Human Systems Center and its Armstrong Laboratory, Brooks AFB, Texas, is charged with sustainment of world leadership in aeromedical research and development and human systems technology. The Surgeon General must be proactive within the research, development and acquisition [RD&A] communities to ensure adequate attention and resourcing is given to this critical mission support area. Aeromedical research directly contributes to advancing technologies that enhance warfighter capabilities, survival and sustainment. Protection from extreme operating environments and performance within highly complex and technologically advanced weapon systems demand an active research strategy to retain a competitive edge. A great deal of work is still needed to improve human systems integration from “cradle to grave” in weapon systems research, development, test, evaluation and acquisition [RDTE&A].

TRICARE

I am pleased to say that implementation of TRICARE is well under way in the AFMS and the entire Military Health Services System [MHSS]. We have come a long way in the few years since TRICARE was first conceptualized and national health care reform became a national priority. Today, the MHSS is more than halfway to achieving our goal of a fully operational managed care system.

The contracts awarded so far represent a more than $8 billion investment in an improved health delivery system for our military beneficiaries. The positive feedback from our Lead Agent staffs and, more importantly, our patients already participating in TRICARE is very encouraging. Clearly it demonstrates that our new managed care program is meeting the challenge to provide high quality, accessible and cost-effective health care.

TRICARE delivery began in March 1995 for Region 11, the first TRICARE implementation site, which is managed by the Army lead agent at Madigan Army Medical

Center, Washington, and encompasses the states of Washington and Oregon. Results from beneficiary focus groups in the region conducted by a private contractor confirm that our customers feel TRICARE offers improved access and continuity of care. In a smaller telephone survey, McChord AFB Clinic in the state of Washington, one of our Air Force medical treatment facilities [MTF's] in the region, enrollees reported a high rate of satisfaction for both primary and specialty care.

Region 6, managed by the Air Force lead agent at Wilford Hall Medical Center, Lackland AFB, Texas, one of four Air Force lead agents, became operational in November 1995. While it's too early for beneficiary satisfaction survey results in Region 6, the initial response to TRICARE has been outstanding. More than 100,000 beneficiaries have enrolled in TRICARE Prime—higher than 70 percent of the projected first year enrollment numbers.

Region 10, headed by a second Air Force lead agent, at David Grant Medical Center, Travis AFB, California, recently transitioned from Aetna Government Health Plans, to Foundation Health Services, who began delivering health care in April.

Region 4, our third Air Force lead agent, is located at Keesler Medical Center, Keesler AFB, Mississippi. The Department of Defense announced the award of the new TRICARE Managed Care Support Contract for both Regions 3 and 4 on Nov. 28, 1995, to Humana Military Healthcare Services, Inc., of Louisville, Kentucky. The planned start date for health care delivery is July 1, 1996, and the Region 4 team is busy meeting with the contractor and formalizing the plan for the delivery of health care in the region.

Region 5 is the fourth Air Force lead agent, located at Wright-Patterson Medical Center, Wright-Patterson AFB, Ohio. The contract award date for the region is slated for the summer of 1996, and health care delivery for this region is scheduled to begin in August 1997. The region has completed all requirements for data collection for the contract ahead of schedule. The Regional Health Services Plan was approved by the Region's Board of Directors and the Office of the Assistant Secretary of Defense (Health Affairs). The Request for Proposal [RFP] was released on Jan. 16, 1996.

Because it is a joint function, I will also address implementation in Region 1, located at Walter Reed Medical Center, Washington, D.C. The lead agent function is jointly shared among the commanders from Walter Reed; Malcolm Grow Medical Center, Andrews AFB, Maryland; and the National Naval Medical Center, Bethesda, Maryland. The Chair rotates among the Services on an annual basis and is currently occupied by the Air Force. The Request for Proposal [RFP] was released on Jan. 16, 1996, and the contract is scheduled to be awarded in the summer of 1996. A number of initiatives involving interservice cooperation are paving the way for military managed care within the Region. Extensive collaboration on the part of the Services has already resulted in several model programs that support the TRICARE spirit through the exchange of resources.

Based on "lessons learned" from our TRICARE contracting experiences, the TRICARE Executive Committee, composed of all the Service Surgeons General and the Assistant Secretary of Defense (Health Affairs), recently approved implementation of revised financing in TRICARE Regions 1, 2, and 5. Under this new financing approach, the MTF's will receive up front CHAMPUS dollars on a capitated basis for all CHAMPUS-eligible beneficiaries who enroll in the MTF. This means the MTF commander is at risk for his or her enrollees, and has more responsibility and incentive to manage their care more efficiently. Implementation of the revised financing methodology requires that both the Composite Health Care System [CHCS] and the Ambulatory Data System [ADS] be operational at all medical facilities within those regions.

I am happy to say we have made tremendous progress in deploying information systems to our Air Force MTF's. CHCS is now in place at 81 out of 85 of our facilities. Patient appointment and scheduling, patient administration, pharmacy, laboratory and radiology CHCS functions are deployed to all Air Force medical centers. A deployable version of CHCS has been developed by the Medical Systems Implementation and Training Element [MEDSITE]. The initial deployment was fielded at Guantanamo Bay, Cuba, in support of Operation SEA SIGNAL. Another deployment is currently underway in several locations in the Balkans to support Joint Task Force Eagle, part of Operation JOINT ENDEAVOR.

We are also rapidly deploying the CHCS managed care program module to all our MTF's. This module provides an enrollment information systems platform for recording enrollment in TRICARE Prime and making specialty referrals and appointments. We expect deployment completion of the managed care program module by the end of fiscal year 1996.

Those sites with the managed care module are beginning to enroll active duty members into TRICARE Prime and assigning them to a primary care manager in the MTF. This early enrollment, before the start of the managed care support contracts, ensures our active duty members receive the highest priority for care in our hospitals.

There are additional examples of our systems technology. The Nutrition Management System, which supports nutritional medicine operations in inpatient facilities worldwide, has been fully deployed at 19 Air Force sites. Deployment of the Defense Blood Standard System [DBSS] to 54 Air Force sites was completed in October 1995. Deployment of the Theater version of DBSS has begun and will continue through fiscal year 1997. Deployment in the Continental United States [CONUS] of the Ambulatory Data System [ADS], designed to collect ambulatory outpatient data, began in May 1995. ADS will facilitate third-party outpatient billing and utilization review under a managed care system. Implementation of ADS was completed in Region 8 in December 1995, and will be extended to include Regions 1, 2, and 5 this summer. Full ADS implementation will be achieved worldwide by December 1996.

Additional systems, like the Provider Work Station and the Clinical Information System [CIS] also capture essential patient data, assisting Air Force Medical Service [AFMS] personnel to improve quality and effectively manage information. We appreciate Congress' support of the Provider Work Station and believe the CIS will prove equally valuable. This system focuses on capturing clinical care data and measuring performance against national standards. Further, CIS can interface with CHCS and other automation systems.

To complement our own automation systems, the AFMS strongly supports the use of Commercial Off-the-Shelf [COTS] products where they meet our needs. Several applications lend themselves to COTS. These include blood and anatomic pathology, patient care documentation (nursing), third party collection, Operating Room scheduling, and managed care decision support software. All of these systems tools I have described are vital as we implement our state-of-the-art managed care program, TRICARE.

TRICARE is a partnership involving all Federal health care agencies. We continue to seek out new opportunities for joint ventures and sharing agreements with the Department of Veterans Affairs [VA] hospitals wherever feasible. Last year, DOD and the VA signed a memorandum of understanding that allows the VA to participate in TRICARE networks. Already, the VA has entered into three such arrangements. Also, DOD now has three demonstration sites where the VA serves military beneficiaries as CHAMPUS providers. These programs save money and increase access to care, a "win-win" situation for both our patients and the taxpayers.

Our joint ventures with the VA continue to develop. Our most mature site at Kirtland AFB, New Mexico, has been followed by our newest one at Nellis AFB, Nevada. While we've had some growing pains there, we and the VA are quickly expanding that hospital's capabilities to better serve our patients. We are also planning for a joint facility at Elmendorf AFB, Alaska. That site will include not only the VA, but the Bureau of Indian Affairs and the Coast Guard as well. Sharing arrangements are also in place between many other Air Force and VA facilities. In fiscal year 1995, the Air Force participated in 169 sharing agreements at 60 different MTF's.

TRICARE will of course be available to those beneficiaries living in Base Realignment and Closure [BRAC] sites. Until TRICARE has been implemented in their respective locations, beneficiaries will have several health care alternatives. In addition to the standard CHAMPUS, CHAMPUS contracts are modified for BRAC locations to provide a preferred provider organization type of option, as well as a retail pharmacy network with reduced patient cost-sharing. Military beneficiaries who are age 65 and older and living in BRAC sites where the benefit is offered are eligible to use the retail pharmacy networks.

A mail-order pharmacy demonstration program is in place in several designated locations throughout the country, to include California and Hawaii; two tri-state regions (Florida, Georgia and South Carolina; and Pennsylvania, New Jersey and Delaware); and 12 designated BRAC locations that are not covered by an existing at-risk TRICARE managed care support contract. The demonstration will be expanded to two additional multi-state regions, and will ultimately be available nationally under the TRICARE support contracts. Last year, Congress also expanded the program to include Medicare-eligible beneficiaries who can demonstrate reliance on a BRAC site MTF before its closure.

We continue to explore "right-sizing" initiatives at all Air Force MTF's in an effort to ensure they are cost-effective and sized appropriately to meet the medical needs of the community and the region in which they operate. We realize that we may no longer need or have the manpower available to have a small Air Force hospital at every base, especially in regions where Tri-Service sharing of resources is possible, or a Managed Care Support Contractor has built an extensive civilian provider network capable of providing services at lower cost. These decisions will be based on a business case analysis and on whether it is more cost-effective to "make or buy" these services. But the bottom line will always be support to medical readiness and our patients. Providing medical support to our warfighters and our Air Force families is job number one. Quality of life for our Air Force members will always be at the center of any decision made by the AFMS.

As we continue to deploy TRICARE, the AFMS stands solidly on its foundation of quality care. The quality of our product has never been better, as attested to by various civilian health care organizations. For example, the Joint Commission on the Accreditation of Healthcare Organizations [JCAHO] reports that the average scores of Air Force hospitals and clinics continue to be higher than the overall national average for the JCAHO survey. Also, the AFMS participates in the Maryland Hospital Association Quality Indicator Project, which determined Air Force inpatient facilities consistently perform as well or better than the aggregate average of other participating facilities. We are extremely proud of our medical professionals, who are top-notch in their fields. Of our total number of Air Force physicians, 53 percent are board-certified, as compared to the overall DOD rate of 45 percent. In fact, there are many similar examples of the outstanding quality of AFMS personnel throughout our five corps and the enlisted ranks.

We are confident that the AFMS has the knowledge, skills and talent to make TRICARE a success. We are committed to making it the best health care system it can possibly be, and are very encouraged by our progress to date. We believe TRICARE is the way of the future that will enable us to provide high quality, accessible and cost-effective health care to our patients, who so richly deserve it. We also recognize that there are some difficulties with the program, most of which will be worked out with time and experience.

One significant issue is care for our Medicare-eligible beneficiaries. Today, Medicare-eligible beneficiaries continue to receive care in MTF's on a space-available basis. However, space is becoming less and less available as our MTF's close and as the competition for military medical facility access increases.

We are currently examining an option to resolve this issue. In addition to continuing to allow these patients to be served on a space-available basis in our MTF's, discussions are currently underway with the Administration to determine the feasibility of a new demonstration where DOD would maintain its current level of effort and would expend those funds first; then turn to the Health Care Financing Administration to cover additional dual eligible beneficiaries who choose to enroll in TRICARE Prime.

We also have real concern over some alternatives to TRICARE suggested by various individuals and groups. One of those alternatives is the Federal Employees Health Benefits Program [FEHBP], the program offered to other federal employees. Interestingly, one complaint voiced by some military beneficiaries is that TRICARE, with its triple-option benefit, is too complex. However, the FEHBP, with more than 350 plans nationwide to choose from, would be much more difficult for our beneficiaries to understand. More importantly, the AFMS cannot in good conscience support this alternative because of the financial burden it would place on our Air Force families.

The costs paid by the beneficiaries for the FEHBP could be considerably higher than costs under TRICARE. Under the current FEHBP system, where the government pays approximately 72 percent of the premium and the beneficiary picks up the remaining 28 percent, typical out-of-pocket costs for a family of four range from $1,510 to $2,460 for HMO-type plans similar to TRICARE Prime. DOD estimates the average out-of-pocket costs for an active duty family under TRICARE Prime to be only $110 to $160. DOD would need to provide a substantial subsidy to offset the higher FEHBP premium expenses in order to make these plans a cost-effective alternative for our beneficiaries. The July 1995 Congressional Budget Office report, Restructuring Military Medical Care, estimates it would be $4.8 billion more expensive to the government to subsidize FEHBP premiums for military families at the TRICARE Prime rates.

We do not support the FEHBP as a viable alternative to TRICARE, not only because of complexity and the increased costs. We also feel strongly that it would threaten medical readiness, the very reason for our existence: to provide support to the Air Force warfighting capability. As addressed in the CBO report, financing an FEHBP option would require significant downsizing of the MHSS, affecting our readiness baseline. We must guard against any effort that would jeopardize the health and well-being of our troops in battle.

We in the Air Force Medical Service are extremely proud of our record and are committed to sustaining our hallmark of quality care in the challenging years ahead. Through the application of the proven managed care principles of TRICARE, Air Force medicine will only grow better and stronger. TRICARE is the most fundamental change in military medicine since the introduction of CHAMPUS three decades ago. We feel it will exceed the needs of our beneficiaries by providing the highest quality and most cost-effective medical care available in the world today and into the next century. And it will ensure Air Force medics have the training and state-of-the-art skills needed to perform our wartime mission.

I extend my deep appreciation to the members of this committee for their support of Air Force medicine. With your help, the AFMS will continue to be a leader in both the military and civilian health care sectors, offering knowledge and solutions to today's challenges that only the unique talents of the Air Force can provide.

BIOGRAPHICAL SKETCH OF LT. GEN. EDGAR R. ANDERSON, JR.

Lieutenant General (Dr.) Anderson Jr. is the surgeon general, Headquarters U.S. Air Force, Bolling Air Force Base, D.C. He serves as functional manager of the USAF Medical Service. He advises the secretary of the Air Force and Air Force chief of staff, as well as the assistant secretary of defense (health affairs), on all matters pertaining to the health of Air Force personnel. He has authority to commit resources worldwide for the Air Force Medical Service, to make decisions affecting the delivery of medical services, and to develop plans, programs and procedures in support of peacetime and wartime medical service missions. He exercises direction, guidance and technical management of more than 52,000 personnel assigned to 87 medical facilities worldwide.

The general entered the Air Farce in March 1965 after receiving his medical degree from Louisiana State University, New Orleans. He is board certified in family practice, dermatology and aerospace medicine. He has commanded Air Force hospitals of all sizes and been a command surgeon. He is a command pilot, a former medical test pilot, chief flight surgeon and basic parachutist with 2,200 flying hours, principally in fighter aircraft.

General Anderson is married to the former Sandra Caston of Albemarle, N.C. They have a daughter, Melisa, and two sons, Edward and Mark.

DEFENSE HEALTH PROGRAM SHORTFALL

Senator STEVENS. Thank you very much, General. I know that you have said that you support the President's budget, and that is your duty. My staff tells me that there is a substantial shortfall in the Defense Health Care Program funding. It is approximately $600 million less than 1996, and it is obviously underfunded.

They also say that in their judgment that this is largely attributed to decisions made at the Department level by analysts who projected unrealistic higher savings estimates from the implementation of TRICARE, and that TRICARE is only at a 30-percent level anyway.

Now, Dr. Joseph, I know you have your job to do to support this program, and that is the job for anyone representing any administration. But I want you to tell us what are the implications of proceeding at this level for the defense health program generally? Staff estimates, for instance, that we could just say what this is, is the deletion of two Army hospitals, two Navy hospitals, and two Air Force hospitals at the least. How are you going to put that across the board in the Department?

Dr. JOSEPH. Mr. Chairman, I will give you my best assessment. I believe we are about $470 million short for fiscal year 1997. I would like to explain that shortfall to you, and then answer your question directly.

A part is an artifact of the development of the TRICARE process. We knew that in fiscal year 1997 there would be a trough where the new managed care support contracts and the continuing CHAMPUS allocations would overlap before one replaced the other. That is part of the problem.

Another part is a series of reductions, which you alluded to. It involves with a disagreement within the Department about how fast we can achieve utilization management savings through TRICARE. One of my colleagues alluded to this.

We planned a phased cost avoidance from 1 to 4 percent over the POM period. It is thought that we could actually achieve a 5-percent per year cost avoidance. We think that is unrealistic, not because we are not trying to bring costs down, but we think that is excessive.

So it is a combination of those reductions and the natural trough in the process that comes to about $470 million.

Now, what will be the impact? We will continue to squeeze, we will continue to tighten the belt through TRICARE. That shortfall will not be translated to the loss of this Army hospital or that Navy function. It will be translated to the progressive tightening down of availability of care and margins of service. Who will suffer most? Obviously, the people who have only space-available accessibility: our dual-eligible, Medicare-eligible, beneficiaries.

The question will come, and General LaNoue has spoken eloquently to this in the past: How far can you continue to squeeze? How far can you continue to tighten down doing the best you can before you reach a point where you begin to lose the capability to manage your assets effectively? We are close to that point. I do not believe we are over the line yet, but there will be a tangible, a real, increase in difficulty in gaining access to care and a reduction in service if we are short.

That is the most honest answer I can give you.

Senator STEVENS. I am going to get to the Surgeons General here in a minute, but one other instance appears to be that there is not the competition that was envisioned at the time we moved to TRICARE. I am told that we have some difficulties in the contract award process, but also that there are only two companies that now hold TRICARE contracts with the Department. Now, there seems to be more costs in implementing the process than was anticipated. Will the lack of this competition further impact the projections as far as the implementation of this new program?

MANAGED CARE SUPPORT CONTRACTS

Dr. JOSEPH. Sir, I would take issue with that characterization. I actually think the opposite is true. We have now let about 8 billion dollars' worth of contracts. We have sustained seven GAO protests because of the nature of the contracting process. We have won five of those seven protests. The two we lost, we lost first time around on the first contract; and believe me, we have learned from that.

Senator STEVENS. Well, am I wrong? Are there more than two now?

Dr. JOSEPH. There are two contractors holding the four contracts that have been let. We have had five challenges in the courts; we won four of those five challenges, and the verdict is not in on the fifth. I am somewhat optimistic about that fifth.

With respect to the actual cost of the contracts, in one, the initial Government estimate for the 5-year contract cost was $4.1 billion. The first round of bidding resulted in an award that was $3.5 billion. After the second protest it was awarded $2.5 billion.

We think that contracting process, which is cumbersome—which requires everybody to jump through all the hoops because of the way the regulations are written, and which takes a long time—has actually enabled us to drive down costs to the program and to our beneficiaries. We have data now to support that, and I would be pleased to supplement this answer with those exact figures.

[The information follows:]

As I stated in my testimony, the contracting process has enabled the Department to drive down costs to the program and to our beneficiaries. Overall, the Department has avoided approximately $1.639 billion in costs (16 percent reduction). The following is the specific data for the four contracts let as of June 1, 1996.

Region 11: The initial government estimate for the 5-year contract was $439 million, and the awarded managed care support (MCS) contract cost was $436 million (1 percent reduction).

Regions 9, 10 and 12: The initial government estimate for the 5-year contract was $3.084 billion, and the awarded MCS contract cost was $2.474 billion (20 percent reduction).

Region 6: The initial government estimate for the 5-year contract was $2.009 billion, and the awarded MCS contract cost was $1.753 billion (13 percent reduction).

Regions 3 and 4: The initial government estimate for the 5-year contract was $4.444 billion, and the awarded MCS contract cost was $3.674 billion (17 percent reduction).

Dr. JOSEPH. We think that there will be continued and enhanced competition. The last award was to a second contractor. We will see what happens in the next award. But, I will tell you, from the way these contractors fight the bid process and the way they protest when it is over, there is no lack of competition.

This is big league baseball, and it takes sizable competitors to come onto the field. One question we have is how to spread through the subcontracting process more involvement for the smaller players. Issues about lack of competition and lack of cost effectiveness in the process reflect where we were 1½ years ago rather than today. I think the GAO studies bear that out.

We could get better and smarter about the contracting process, and in particular we have to simplify it both to the proposers and ourselves. I think that we are well beyond that picture that you painted.

Senator STEVENS. With a Department your size, if you only have two contracts nationwide, it appears that there is some feeling that there is a greater savings potential in terms of the cost of administration of contracts as compared to the advantage of having multiple contracts and having competition and having literally competition between areas, between companies, to see who can do this best for the best cost. Now, why have we opted to nationwide contracting in terms of this option? Do you not have the option to go to areawide contracting, less than the full Nation?

CONTRACT COMPETITION

Dr. JOSEPH. Sir, these are regional contracts. We do not have two contracts. We currently have four regional contracts out there.

Senator STEVENS. But just two companies?

Dr. JOSEPH. Two companies. One firm won the first three of the competitions, and that led to some concern. The fourth contract, which was won several months ago, was awarded to a second company. So today we have four contracts; eventually, we will have seven separate regional contracts.

The competitions for each region generally have between three and six bidders competing for a regional contract. That competition is fierce. It takes a large investment and a large and sophisticated company to even get into the bidding. That is a limited universe. But I do not think there is a lack of competition.

I would have been worried if we had four regions with a single contractor, but we did not. We now have two separate companies that have our contracts, and we will see what happens with the remaining three. And the data on price estimation compared to contract award amount shows very clearly that the process drives prices down.

Senator STEVENS. Well, I think the jury is still out on that one, my friend, but you have the ability to do what you have done. It just seems that there ought to be more ability for smaller entities to come into this system and grow, rather than rely upon enormous monolithic companies to come in and provide the nationwide service, even despite the fact that you are dealing with areas.

Let me ask one last question, and then I will defer to my good friends from Hawaii. I think the Admiral mentioned this. One of the great difficulties about what I see is that military retirees, once they reach 65, are going to have a trauma as far as shifting to a different type of service. At a time when most people believe there ought to be great stability in terms of the availability of health care, they are going to have to shift around.

MEDICAL SUBVENTION

Now, I know you are asking for subvention, and I believe that you have bipartisan support on that if we ever can get to it. But I wonder why we were forced to go to that system. Was it not possible for HCFA to give you approval to have reimbursements using existing military facilities? Do we really need legislation to accomplish this subvention concept?

Dr. JOSEPH. Sir, page 1427 of the President's proposal for national health care reform states administration support for Medicare subvention, both for the Department of Defense, and also for the Department of Veterans Affairs.

Senator STEVENS. There were so many chairs on the decks of that *Titanic* it did not survive.

Dr. JOSEPH. We have worked both administration possibilities and legislative possibilities to get Medicare subvention. I do not think it is a secret that this is not an issue of unanimity within the Government. The people who worry about domestic health care and that particular train wreck view this issue of subvention from a very different perspective than my colleagues and I do. We have worked, and we continue to work, that issue as hard as we can. We have also looked to the Congress for support in making subvention viable over the next few years. It could be done either way, but at this point we are looking to you for help.

Senator STEVENS. My problem is I do not think in the time I have been here I have ever had really the joinder of the voices of veterans and retirees all talking about the same thing. They are not talking about any other kind of benefit other than health care right now. We are hearing more and more from veterans and from retirees about the changes that are coming back in terms of health care. And it does seem to me that the stability of the system is one of the chief problems. They are being forced now with the—and I understand it, we all understand it—closure of bases, closure of facilities, they are being forced to go to different areas for care, and now they are being told they are not eligible there except on a space-available basis, as far as the retiree is concerned.

With the veterans, they are being told to go to an entirely different community than their own in order to get care which used to be delivered under contract in their own community.

Now, I know that we have got legislation to deal with some demonstration on Medicare subvention, but again, we are going to see those tests in two or three communities, and we all know what is needed. We need some way to find a system like an outpatient-type clinic away from the military medical facility, so that you can have some better control over the retirees other than just on a space-available basis.

What are you doing to innovate, somehow or other, to maintain the connection between these retirees and the facilities that they have used in the past?

TRICARE

Dr. JOSEPH. The structural response is the TRICARE system, the military treatment facilities [MTF's], and the managed care support contracts with provider networks in the community. The question we face is how to enable our system to be financially viable while permitting guaranteed access to our Medicare-eligible beneficiaries.

Senator STEVENS. But, Doctor Joseph, we have been told the Medicare trust fund is bankrupt in the year 2002, and what you are saying is we have to take more money out of the Medicare fund in order to meet the commitments we have made to military retirees. Now, that is just not going to fly.

Dr. JOSEPH. But, Senator, those patients are patients who are Medicare-entitled beneficiaries and who indeed do use the Medicare trust fund for the care they buy downtown.

Senator STEVENS. They have not in the past. They have been using your facilities. They are just now being pushed off onto the Medicare system at a time when the Medicare system is failing.

Dr. JOSEPH. They are using our facilities less and less over recent years because they cannot get in.

Senator STEVENS. I think it is just a dilemma, really, and we have got to find some way out. I am not blaming you. I know that the system is getting very highly stressed.

General LaNoue, you heard my questions. What is a Surgeon General, now, of your Army, what are the answers as far as you are concerned? First, you have to absorb somewhere around $150 million loss, and maybe a little bit more. With you it is $175 million, probably. Second, you have to deal with the retiree question. And third, you have to deal with how to handle this new system of TRICARE and its relationship to CHAMPUS within that system with less funding. Now, how are you going to do it?

CAPITATION

General LaNoue. You gave me the dilemma, sir, and I think I can give you some coloration to the potential that may exist there. First of all, the issue of the $179 million where we are below our capitation requirement. Sir, on a capitation basis, which HMO's more and more are coming to as finding a more efficient way of delivering managed care, a more accountable way, our capitation rate in Department of Defense, all three services, is less than the system as a whole. I think we are very efficient, and I think we are very accountable on that regard. And so our request for funds is to meet that capitated fund, and we are short $179 million in the Army.

To accommodate that shortness of $179 million several things will happen. You mentioned the closure of hospitals. Of course, we would not do that. We would try to spread it out over the larger system. The first beneficiaries to feel that squeeze you just mentioned would be those people who have alternate financing such as Medicare. The access would degrade. And so those people would find other sources of care through Medicare.

But at the same time, we would have to reduce our manpower by about 700 civilians in our hospital system. And if you look at two large MEDDAC's, reducing them to a medical clinic would be roughly about 700. But again, we would not do that. We would spread it over a broader area and have an impact on access across the system as a whole.

The unfortunate part about trying to lay off 700 civilians is that you cannot do it on the beginning of the fiscal year. And so in order to gain the dollar amount of 700 work-year people we would have to go beyond 700 by the end of the year in order to make those savings.

The problem generates into what I call a vicious cycle, a vicious death cycle, because we have already committed to TRICARE in the support contracts. Those contracts have been let. We are committed to those funds at the front end of the budget. And without adequately funding the rest of our direct health care system so that we can play on a level ball field, as the Secretary says, what happens is that our decreased access will impact on the contractors, because they will experience a shift of workload into their area, and by contract they can then ask for increased finances, demand increased finances.

So the simple formula would be that if one-half the work is being done by contractors and one-half the work is being done by our direct health care system, and we take a 10-percent cut overall, well, we cannot take 10 percent away from the contractor, it is illegal. So the direct health care system absorbs the whole of it, which makes it 20 percent of their funds. So if they do 20 percent less work and the workload shifts, then they take more than a 20-percent reduction, more like 30 percent.

And so that is the death spiral that we start going in if we do not adequately fund both sides of that balance.

Senator Stevens. You give me two horns to that dilemma then, right? What you are really saying is although it looks like the impact will go to the retirees, since your contracting out a great deal of that, it is going to be double the impact on the service-eligible people.

General LaNoue. That is right, sir. Sir, there is an alternate piece that goes to it, and the word accountability fits into it. Dr. Joseph is trying very hard, particularly in regions 1 and 2, to build an alternate financing model to help fix the problem that you are talking about right now. However, there are significant barriers to moving in that direction. But the simple difference is accountability.

When the contract for the dental contract was shifted just recently and the commander of the 1st Corps at Fort Lewis calls me up and says General LaNoue, I have got a problem with access to dental care. I used to be able to go to my dental surgeon, and he would go to his dental community and fix the problem. I have no alternative now except to refer to Dr. Joseph and his contracting people that we are having trouble with a contractor. Sir, that accountability is starting to break.

UTILIZATION MANAGEMENT

Senator Stevens. Admiral Fisher, how are you handling this?

Admiral Fisher. Obviously, there will be a lot of pain. The area that we have been working on and would have to continue on is the traditional approaches we have always used, looking at personnel like General LaNoue said, and continuing to press on utilization management. The area on utilization management I am particularly concerned about is the 1995 statistics on active duty occupied bed days in the Navy, which are already below the 1993 managed care norms for the country.

The family member occupied bed days is slightly above the norm, but I do not know how much further down we can squeeze on utilization management for savings. So what will probably be happening is exactly what Dr. Joseph and General LaNoue said. There will be a longer queue in waiting for services.

What we are trying to do in regard to support for retired members and particularly those over the age of 65, is ensure that space available care is, and continues to be offered to them. We are also offering screening programs in regional areas where there is a military treatment facility. We have health fairs and screening programs that are very actively advertised and open to the retired population for preventive screening and things like that.

There are also portions of the TRICARE system that do not exclude the over 65 group. We are putting pressure on there to make sure these services continue working. For example, the health care finder service does not exclude the over 65 population. The over 65 retiree can still come into our TRICARE service centers and we will help them find appointments with providers in town that take care of Medicare-eligible patients.

The finder system is working well. We are also conducting educational programs for our beneficiaries, explaining the Medicare HMO system and its idiosyncrasies, and explaining different insurance programs. Those are the areas we are concentrating on. We view Medicare subvention as an absolutely critical point that will allow us to provide a seamless continuum of health care.

Senator Stevens. General Anderson.

General ANDERSON. Sir, the Air Force number is $147 million for fiscal year 1997. As you correctly alluded to, that equates to two large Air Force hospitals and withholding of care potentially for 41,000 people in the over 65 category. So it is a significant impact on access. As Dr. Joseph said, the three words that describe it best are access, access, and access.

I have great faith in the ultimate success of the TRICARE program, and I think we need to remain committed to that end. Medicare subvention is imperative for a number of reasons. First and foremost, we are the best deal that the Department of Defense can get. If we are capitated, as we are discussing, we will save the Department money. We will save the Government in the aggregate money, because the service we can provide we can do cheaper than it can be bought from a Medicare HMO. The demonstration programs that we are suggesting and trying to get rolling will do just exactly that.

As you compare capitation to TRICARE for the over 65, as compared to the fee-for-service Medicare, there is the opportunity for enormous savings. In a book recently written by a man named Halverson called "Strong Medicine," he thinks that that potential approaches 50 percent. I think that that is ambitious, but nevertheless, there are some real savings that can be made there.

For us, though, the real gold nugget in this is continued care to a segment of the population who so richly deserve that. I spoke Monday night in Atlanta to the Air Force Association. The lead navigator for the B–17, first B–17 raid over Nazi Germany was there. They want care within our system, not necessarily in the direct care system in a military hospital, but in our network, and that network is TRICARE. They richly deserve that. We can do it cheaper, we can do it better, and that is the service they want.

And finally, sir, their participation, the over 65 folk's participation, in our system is imperative to our ability to continue to run a graduate medical education program. In turn, that GME program is essential to our ability in the out-years, meaning 5 to 10, to continue to even support a combat operation. I am fond of telling my line leaders that just as they cannot go out and procure aviators from Emory-Riddle or Purdue or off the civilian market who meet their requirements, we can neither recruit nor retain the caliber or the number of health care professionals who meet our standards. We have got to train them ourselves and obligate them for a long time, just like the line of the Air Force has to do with its aviators.

I think that General LaNoue has a particular segment of that. The enlisted technicians that we train in our programs, in our teaching hospitals, are not available anywhere from the private sector, and he has an awful lot of those. Admiral Fisher and I have a lesser number, but they are unavailable in the private sector. So our training programs are absolutely dependent on the availability of the over 65ers who contribute to our ability to even support a combat operation.

Senator STEVENS. Let me yield to you now, Senator Inouye. I have other questions, but I will come back later.

Senator INOUYE. Thank you very much. I am certain all of you realize that the subcommittee and especially the staff have spent many hundreds of hours preparing for this day. And I would like to, if I may, single out two ladies who have been most helpful to us, both of them interns, nurse interns, Col. Bobby Scherb of the Army and Lt. Col. Tina Holmlund of the Air Force.

On the matter of TRICARE, if I may add more confusion to the whole thing, you have had to transfer approximately 2,000 staffers who were, up until now, handling individual health claims, into contract management, contracts ranging from 800 million to about 2.5 billion. And so I agree with General Anderson that the shakedown cruise may take a little longer, and we have got our fingers crossed.

But if this program is to succeed, we will have to somehow resolve either the capitation or the Medicare reimbursement program. Because even if we provided the full amount of the shortfall—$479 million, I believe it is—this problem is not resolved. And I think all of us will have to get together—we are on the same team here—to try to resolve this matter, because otherwise we are going to be faced with this dilemma every year whenever we get back here. This Medicare subvention, if it is not resolved, this TRICARE program will always be under a cloud for the lack of funds.

TELEMEDICINE

I would like to commend all of you for being candid in describing your shortfall. I realize that all of you are committed to support the administration's budget request, but I think it is well that we know what the problem is.

All of you have said, either orally or in your prepared statement, you have great faith and support for the telemedicine aspect of your business, and yet if we look at the budget there is not a penny of special funding for telemedicine. All of you are required to dip into your O&M funding for this. If it is important enough, do you not think we should set aside something for telemedicine? Dr. Joseph?

Dr. JOSEPH. I think we are coming to that point. There is, as you say, scattered through the budget, allocations for specific projects. Coming over in the car we discussed the total estimate being around $40 million. I do not know whether that is true or not. I will try to get a better number back to you.

There are two issues that make me say we are coming to that point but that we are really not there yet. One is that we had to build a structure to programmatically fold in all the 100,000 flowers that have been blooming out there, and in a way that is triservice, interoperable, and coherent. Then, we have to decide in what directions we should go and how we should manage those resources. General LaNoue ought to speak to that question because he has been a driving force behind it.

Second, the Bosnia operation has given us an extraordinary opportunity—which we have taken—to deploy in a systemic way, rather than a single project by single project way, a telemedicine approach to a deployment situation. As part of that approach, we have included a rather vigorous evaluation component, three separate pieces of evaluation. Coming out of the Bosnia deployment we will be in a much better position to know what very specific readiness directions in telemedicine—telemedicine can be as broad as you want, but now I am speaking specifically to the readiness issues—what specific channels that we want to run, where we think, how far out and how broad these efforts are worth pursuing, and what problems that we had perhaps not anticipated are there.

My best estimate would be that it will be another year down the road, when you combine what we will learn out of Joint Endeavor, Prime Time–3, Bosnia, plus where we now have gotten with the telemedicine test bed organizing principles that Sid has been driving. I think at that point we will really be in a position to think about how that money should be programmed as a categorical item.

Senator INOUYE. Obviously, you are incurring costs in Bosnia for telemedicine. Why is not that cost made part of the supplemental request for Bosnia?

Dr. JOSEPH. I believe at least some of it was.

In the supplemental was $16 million in 1996 and $4 million in 1997.

Senator INOUYE. All of us are concerned about readiness. According to our studies, in the last 6 years or so the deployment of your services overseas have tripled. In your case it has gone up 700 percent in the Air Force, as you have indicated. The Air Force has experienced a 700-percent increase since Desert Storm. You have had to deactivate, for example, 1,800 intensive care beds, and you have only 200 prepositioned ICU beds, is that correct?

General ANDERSON. We have taken our number of contingency hospitals down from 34 down to 4.

Senator INOUYE. And yet you have experienced a 700-percent increase in operational deployments since Desert Storm?

MEDICAL EVACUATION

General ANDERSON. Sir, many of these are small level deployments for humanitarian operations that do not generate the number of critical care responsibilities that we had prepositioned and planned for before.

Senator INOUYE. If we are to be ready, our studies indicate that you need more evacuation assets. Why are we not pressing for that, such as the UH–60Q?

Dr. JOSEPH. Well, sir, we are pressing for it, and perhaps it would be best to ask General LaNoue to answer the Medivac question specifically.

Senator INOUYE. General?

General LANOUE. Yes, sir; this has been a major concern of mine for my entire watch. Indeed, I became concerned about it about 8 years ago when I was at the school house as I watched the POM years and the changing character of our deployments, the increasing distances, the changing expectation of health care, and the expectation that we should decrease the wounded in action as well as saving those people who do get to the hospital. And indeed, telemedicine has been part of that.

The UH–1, which used to be our workhorse, was developed by the medical department during the Korean War, and that vehicle has been improved upon, certainly, over the years. But the UH–60 has come into the inventory of the Army, and is now the Army's workhorse. It flies higher and faster and has more avionics that allows them to get through smoke, fog, and into areas where the UH–1 cannot get into.

An example of the difficulty is when we lost those four ranger soldiers in Florida due to hypothermia in the swamps, it was foggy. And we had a UH–1 on duty, and it could not get into the fog to find the soldiers who were in trouble. And certainly that can be duplicated many times over in a war situation, certainly in Europe where fog and smoke is quite a consideration.

But the analogy I like to use is that during the Civil War our ambulances were wagons drawn by mules. And it was Major Letterman who, during the battle of Bull Run, recognized that the contracted-for mule skinners during the time of the battle ran off from the battlefield because the Union was losing the war, and the wounded lay there for 3 days before we were able to finally get to those who were still alive. And Dr. Letterman devised what is now our modern system of far-forward surgical care, move the doctors and the surgeons closer to the battle; have dedicated conveyances manned by medical people to retrieve the wounded; and have dedicated control of these people, teach them first aid, move even better care right up to the soldier, where the wounded is encountered.

Since that day we have modernized our ambulances in the military—C–17, UH–60, the C–130, track ambulances—but what we have modernized, Senator, is we have modernized the mule. Behind the mule, behind the conveyance, is still a flatbed wagon, or the equivalent of it. And we need to have ambulances with built-in oxygen, built-in electricity, and suction, with the systems on board that can care for patients, and bring us into the third wave of Toffler that says we can do much more further forward.

And with that, we partnered with the Air Force, General Stierle, to whom you will be speaking in the next session, is leading a joint group to look at care in the air, how can we modernize care for patients while we are moving them. It is only then that we can then bring the wounded in action rate down, which has stayed the same war after war after war.

So I am fighting the issue in the Army. The Army has difficulty in its modernization program. The Army has recognized that the UH–60Q is important. But first it had to move from the UH–1 to the UH–60 as the first step. But now in the POM I understand that even up through 1999 we are still going to have UH–1's in the inventory. So we are working hard with the Army to get them there.

In the meantime, if we only had a few UH–60Q's, we could find out how adept and how much improved we can provide ambulance care in our helicopters, and eventually in our Air Force platforms. We have gotten on the list of modernization for the Army. We started at the bottom, and we have moved it all the way up to 13, 13 below the cut line, because the Army has to make the decisions as to what it can afford based on the budget of the day. So we are working in that direction, but we are working against a very strong current, sir.

Senator INOUYE. How many do you need?

General LANOUE. Sir, if I only had four I could make a big difference. We have an ambulance fleet that exceeds 300. But the main point is what do we need to support the first group of fighting units that go into battle. For that group we need about 80. But if I could only have the first platoon or the first company of 15 or 30 ships, I think we would enormously improve ourselves. We only have 15 now in Bosnia, and so as these kinds of deployments go through we can put the best forward.

Senator INOUYE. Just four?

General LANOUE. I would be happy to have four, sir. I have none now.

USUHS

Senator INOUYE. As most of you are aware, I have long supported USUHS. And once again, it is not in the budget request. And I think I can understand why. Given a choice of direct care for personnel or the school, you are going to say we have got to take care of the men and women. But I do not suppose that you would object if we supported USUHS, would you?

General LANOUE. Is that to me, sir?

Senator INOUYE. Yes.

General LANOUE. Sir, USUHS brings a great value to our system as a whole, and on a long-range basis. But you said it very well that affordability becomes an issue for me. Each year it has been unfunded and we, the four of us, have had to refund it out of what is left of our funds, and it becomes an affordability issue.

Senator STEVENS. We put the money in there the last 2 years. I do not know why you would have to take it out of yours? We found the money for that, the two of us.

Senator INOUYE. That is right, and we will find it again.

Senator STEVENS. We will find it again. But you had to find more money than we provided?

General LANOUE. Well, sir, there are two buckets. One bucket is the dollars to pay for the civilians and the equipment and the upkeep. The other bucket is the people bucket. I have about one-half of the military and these gentlemen have the other one-half split between them. I have to assign the people out of my resources, and my resources are shrinking.

Senator INOUYE. How much is that?

General LANOUE. Sir, I would have to get that information.

Dr. JOSEPH. We will get you that information in dollars and people.

[The information follows:]

The original closure plan for the USUHS, following the 1993 recommendation of the National Performance Review, was reflected in the fiscal year 1995 budget. The plan called for closure of the University after graduation of the May 1997 class.

The Fiscal Year 1996 Authorization Act prohibits closure of the University and requires staffing to be no less than the October 1, 1993 level.

A comparison of the associated civilian manpower for fiscal year 1997 is as follows:

[Dollars in thousands]

	Fiscal year 1997 Civ WY's	Change from fiscal year 1995 budget	Cost [1]
Direct funded WY's:			
Fiscal year 1995 Budget	120		

[Dollars in thousands]

	Fiscal year 1997 Civ WY's	Change from fiscal year 1995 budget	Cost[1]
Fiscal year 1993 WY Level (Sec. 1071, Fiscal Year 1996 Authorization Act)	497	377	$22,407

[1] Fiscal year 1997 average salary of $59,434 as of the fiscal year 1997 President's Budget.

A comparison of the fiscal year 1997 manpower staffing levels per the original USUHS closure scenario reflected in the fiscal year 1995 budget versus continued operation at the fiscal year 1993 level is:

[Dollars in thousands]

	Fiscal year 1995 Budget Mil E/S	Change from fiscal year 1995 Budget	Cost[1]
Military End Strength:			
Fiscal year 1997 Projected Military End Strength	341		
Fiscal year 1993 End Strength Level	794	453	$34,044

[1] Military Personnel Cost computed using POM 98–03 Service composite rates.

The schedule below highlights the fiscal year 1997 Operation and Maintenance (O&M) resources the Defense Health Program (DHP) must divert from other health care activities to support the delayed closure of USUHS. The civilian cost displayed above represents a sub-set of the O&M resources summarized in this table.

	Fiscal year 1995 Budget	Fiscal year 1997 Budget	Cost to DHP
Operations and Maintenance: Fiscal year 1997	$11,000	$52,000	$41,000

USUHS

Senator INOUYE. But the first bucket has been sufficient so far?

Dr. JOSEPH. Well, the first bucket supplemented by what we have been taking out of hide in the second bucket. It is back to the discussion we had on the other issue around the shortfall. We make it up one way or another. I will get you the number of people and dollars in that second bucket.

Senator STEVENS. My staff tells me it is about $8 million, General and Senator. I remember so well when I went to China that you used to have people go up, and we had a big water barrel, and from that water barrel came out all the showers. But the only way to get up there was to carry two buckets, so they developed a yo-yo pole and put a bucket on each side. You would not fill up that shower barrel very fast if you just had one bucket. You have to have both buckets.

We hear you, General. We will fix that one, too.

Senator INOUYE. You heard the chairman.

General LANOUE. Thank you.

Senator STEVENS. I disagree with whoever is attacking that university because I have met some of the people who have graduated from there. They are unique people. Many times they come there because they could not get into a medical university. They are people from the services who have come out of some of your basic people you are talking about, the enlisted corps, the people who have had experiences in the military that led them to want to go ahead and be involved in becoming really physicians, surgeons, and some of the finest I have seen in the services come out of there.

They have tremendous backgrounds. I have met several who had infantry backgrounds in Vietnam, and came back and sort of switched around and could not get in the university and did end up there, and they are fine people. So I think it is absolutely essential to be able to take those people in and give them the opportunity. They are tremendous people who are providing very valuable services, I think, and will continue to do so. I really do not understand why we cannot have—and it is rather adjunct to you, it is an adjunct to Walter Reed, and I think they get a lot of assistance from Walter Reed staff in terms of some of their instruction, do they not, General?

General LaNoue. Yes, sir; and Bethesda and the Air Force. We are all in this together, and we are all proud of the output of that organization.

For the Army physicians, most of our physicians are trained to be specialists and come on board at the specialist level, at the major level, when they are ready to participate in our organizations, and it leaves a deficit back in the divisions where we need to have special kinds of folks. And these young men and women come out of USUHS, and they fit right into level 1 and level 2 care in all three services, and they do a great deal of work there, and then they bring that experience with them as they become progressively up the ladder of leader development.

Senator Stevens. My apologies.

Senator Inouye.

Senator Inouye. Thank you. I think we should note that the retention rate of USUHS graduates are better than West Point, Annapolis, or Colorado Springs. I think it exceeds 90 percent at this time.

DENTIST SHORTAGE

On dentists, are these numbers correct? We have been advised that you will be 773 dentists short by the year 2000 if the current pace continues. Is that correct?

Dr. Joseph. The thrust of your statement is certainly correct. I would have to check to know if the exact numbers are correct. We have a dual problem with dentistry now. We are not meeting our accession goals in any of the services, and our retention rate is not what it needs to be in any of the services.

Part of this is a money problem. Young dentists are coming out of school now with $75,000 to $80,000 debts. Part of it are other kinds of problems; 50 percent of all dental graduates are now females. We have a hard time recruiting women dentists in the military. We ought to do something about that, and we certainly are trying.

I think there is the very real possibility of a crash in our ability to sustain the dental manpower we need in the coming years. I think it is a very serious problem.

Senator Inouye. Would an increase of specialty pay help that situation?

Dr. JOSEPH. An increase in accession and specialty pay would go some way to solving that problem. Whether it would go all the way, I am not sure. But it certainly would make a difference.

Senator STEVENS. What would it cost to have a program that paid part of that university debt of persons who would enlist?

Dr. JOSEPH. Senator, as you probably know, there have been proposals in the past for an accession bonus, which I am sure, most recent graduates would use to help pay off that debt. There have been proposals for various levels; $30,000 was the highest one that I remember. So you could titrate it. Between accession bonus and specialty pays you could increase the financial attractiveness of military service.

As you know better than I, our people do not come in and stay in because of the financial incentives. But the financial incentive is an important adjunct to why they come in.

Senator STEVENS. No; but they go somewhere else if they can't earn enough to pay off their school loan.

Dr. JOSEPH. Yes, sir; absolutely.

Senator STEVENS. When I was in the State legislature I got our State to adopt a policy of forgiving State loans to the extent of 60 percent if the students came back and worked in the State. I do not know why you cannot do something similar and get some kind of bonus to pay at least a substantial portion of the cost of the loans annually. You do not have to pay them off altogether, just pay them off annually.

Give us a figure, will you, Dr. Joseph. What would it cost to pay off a substantial portion of the yearly amount that they have to pay so long as they stay in the service.

Dr. JOSEPH. Will do, sir.

[The information follows:]

Dental school graduates are incurring educational loan debt in the realm of $80,000. The average payback period is 12.5 years, which translates to approximately $6,400 per year. However, in order for our proposed loan repayment incentive to be effective in recruiting qualified dentists it must be structured to pay off a substantial portion (if not all) of the educational debt over a four year time period, which is the standard increment of obligated service. Therefore, our proposed initiative is designed to offer up to $20,000 per year (with an annual increase for inflation) for each year of obligated service, with a minimum three year obligation. This is a cost-neutral proposal. The funding will be provided through an offset from the Armed Forces Health Professions Scholarship Program. The maximum benefit will be $80,000, or the inflation-adjusted amount provided in return for a four year commitment.

Senator STEVENS. Thank you.

Senator INOUYE. Mr. Chairman, I have many other questions, but I know that our colleagues are waiting.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman Stevens and Senator Inouye. I thought I might bring you a report with reference to the level of funding for defense in the budget negotiations, as of this day. As you might recall, the Senate was about $1.6 billion under the House, and we have tentatively agreed to split that difference, so we will be $800 million more than the Senate passed in the budget resolution that cleared here.

We have not agreed on the other allocations which have to do with appropriators, but I thought you might be interested, and we might get that done within the next 48 hours.

Senator STEVENS. Thank you.

JOINT HOSPITAL AND MEDICAL CENTER

Senator DOMENICI. Let me talk a minute with you, General Anderson, if I might. By way of a little background, you all know we have in Albuquerque Kirtland Air Force Base, and you know that down south we have Holliman Air Force Base. That is the one that has received a little notoriety because we are training Germans there. And that, on these talk shows, has stirred up all kinds of interest in what you all are up to in bringing the Germans here. In any event, it is working marvelous in terms of Alamagordo and that county.

But in Albuquerque, one of the most far-reaching experiments on new hospitals occurred with the Veterans Administration. It turned out before a new hospital was finished it was going to get a rating of being way overbuilt. It turned out Kirtland Air Force Base was thinking about tearing down an old hospital and spending $40 to $60 million for a new one. What has happened is a joint hospital and medical center that is both the U.S. Air Force and the Veterans Administration. I believe, General, that it is heralded as a fantastic success. It has permitted the specialists, because we are always short, to work in an interchangeable environment where you do not need to double up on certain specialists. It has permitted a lot of good and exciting things, and strangely enough, the veterans who were the ones that worried at first and opposed have, in that community and that facility, accepted this new kind of partnership in a very positive way, and I only hear a sporadic kind of complaint which I believe comes when you have a big institution.

Having said that, I understand that the Air Force and the military are busy looking for new kinds of partnerships and arrangements when it comes to a new investment or inventory of items for health care that costs a lot of money. I wonder if you would reconsider and take a look at Holliman Air Force Base. Let me suggest that in that community they are planning a new general hospital. It is a significant investment by the community. I think in your files you will find correspondence with reference to it. They now have sufficient money to start their new hospital, and sitting over at Holliman is a facility that to call it a hospital is exaggerating. I believe its inpatient numbers have dwindled to four to six, and yet in the scheme of things you are asking for $20 million a few years out to rebuild and expand the facility.

Now, I am not sure that you know all this, General, and I do not expect you to remember a letter that you wrote in August 1995. I will put it in the record, along with one that I am writing to you today and handing to you. I am asking if you would take another look at whether it is possible to break another frontier and see if there is not a possibility that rather than looking at $20 million for a new facility when we do not have much need at Holliman to a possible joint venture or partnership with a new and expanding general hospital that the community plans.

Now frankly, I know in times past there probably would have been some obvious red flags. We want ours, we do not need theirs, it is military, not civilian. But I believe the time has come when we are in this for the long haul. And things are much different than they were 10 or 15 years ago. We are also in it to spend less money and try to get as good service and good care and protection for our men and women as we can.

I came today because I do not think I would have an opportunity, nor did I think you would have time, to drop by and talk to me about this. These are very tough days for all of us. So I thought I would use this opportunity to suggest that maybe we can break another—what would you call it—barrier by seeing if there is not some way to have a general community hospital in a partnership arrangement with a military base that does not need a hospital very much.

Would you look at that for us and at least let us know?

General ANDERSON. Well, certainly I will, sir, and you are quite right that we are exploring and knocking down barriers all over the place to find better, cheaper ways to do things, and we will do exactly what you have asked. And certainly, sir, I am available to come over any time you want and discuss the issue. And I will get back to you on this one.

Senator DOMENICI. Mr. Chairman, I do not believe that I should necessarily use this hearing for a parochial issue, but I think it has a little bit of significance.

Senator STEVENS. It would be unheard of to talk about parochial issues here. [Laughter.]

PARTNERSHIPS

Talking about going through a barrier, we have already gone through this in Alaska, in Fairbanks, to have some shared technology with the community in terms of replacing the Bassett Memorial Hospital on Fort Wainwright. I think this is a wave of the future, to have some concepts there. It was part of the President's bill, as a matter of fact, to break down some of these barriers and try to have some designation of specialty, and we will probably work that out, with General LaNoue's help, before he leaves us.

Yes, sir.

General LANOUE. Sir, may I make a very small comment about our allies, the Germans? I happened to be in Bonn last month and had a visit with their surgeon general's office, and you need to know that during Desert Storm/Desert Shield they were prepared to support us medically in any way we needed as staunch allies of ours, and they reinforced that intent. They currently take care of many, particularly on weekends and nights their hospital system is available to our people in Germany, and indeed, in the event of any kind of mass casualty or need for hospitalization of soldiers in any numbers, they stand by to support us in any way. That is, I think, a wonderful relationship, and we have a staunch ally.

Senator DOMENICI. Well, Mr. Chairman, I would say one thing that is amazing about the German families that have moved to Alamagordo as part of this Holliman contingency. I have not set about to find out what kind of living allowances they give these officers who fly these planes for them, but I suspect it is an awful lot better living allowance than we provide ours.

Why do I say that? It is just amazing what they can afford. They are renting houses beyond the means for our airmen. Captains, lieutenants, or whatever, cannot afford what they have. They have the absolute best. They bring a German family in with three children, a captain who flies their planes and a spouse, and they live in rather more than average American houses. They live in very, very high middle income houses and somebody pays the rent.

It is kind of interesting to see that. These people are accommodating to this high plain and desert, and they kind of love it here in America. Even when the wind blows very hard at Alamagordo they seem to like it. So we are very pleased to have them.

Thank you very much.

Senator STEVENS. Senator, did you have another question?

Senator INOUYE. No, thank you.

Senator STEVENS. Gentlemen, I have some other questions, and I have some to submit for other members of the committee. We would be happy if you would respond to those requests. We do want to go on to the nurses panel, if you do not mind.

I do again want to say, General LaNoue, we do appreciate your service. I had a little problem starting out because I have a problem with one eye, and I see that your 10 as a Q. It is one of those problems. It is just a matter of things going along as the years go by.

Senator INOUYE. You are not that old. [Laughter.]

Senator STEVENS. Well, that is another thing. I will talk about that later. But we enjoyed having you here, and I do want you to know that I think of all the things we deal with here that you four are closer to the pulse of what affects morale in our services than anyone I know. When we see people going overseas to the extent we are now, with the deployments that are being made, with the servicemen and women leaving their families behind, and realizing the burden of that single parent to handle the children, I was just talking with my staff here.

One of the problems we have had is a decrease in the number of people in the military but we have had an increase in the number of dependents of those who are still in the military, so that your demands on your facilities are greater than before the reduction that we have all seen in the last 10 years of the size of our military force. But those people that are left behind, their ability to be cared for and be treated properly has a great deal to do with the morale of the service people that are overseas and those who are in Bosnia and elsewhere around the country and around the world.

I think we want to do everything we can to assist you to meet this shortfall. Dr. Joseph, I hope you can win some of the fights with those analysts over there and make them see the results of some of these predictions they are making. It does seem to me that the people that are being shortchanged now are not the retirees, if I understood this testimony as much as I think I have, it is we have had a real impact on the ability to serve those families and the people who are being deployed overseas, and we do not want to see that. We want to see you have a fully funded capable health care delivery system as far as our military system is concerned.

ADDITIONAL COMMITTEE QUESTIONS

So I appreciate your taking the time to come. I am sure my friend from Hawaii does, and we look forward to seeing you again next year. And General, we will welcome you back for the advice that you want to bring us any time.

General LANOUE. Thank you very much, Mr. Chairman.

Dr. JOSEPH. We would just like to thank you again for your continued support.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO DR. EDWARD MARTIN, PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR HEALTH AFFAIRS

QUESTIONS SUBMITTED BY SENATOR ARLEN SPECTER

Question. Currently, the northeast region of the U.S. is inadequately represented in national telemedicine research activities. I have been made aware of a proposal by the Mercy and Crozer-Keystone Health System in Pennsylvania to establish a demonstration telemedicine system designed to enhance the telemedicine capability. What is your opinion of such a proposal?

Answer. We have no knowledge of the proposal by the Mercy and Crozer-Keystone Health System in Pennsylvania.

Question. It has come to my attention that the freezed-dried blood technology for the Department of the Navy could be very beneficial. It will be free of cell viruses (instead of using crew member blood that could have undiagnosed viruses), increase the storage life from 5 days to 2 years (well beyond normal deployment durations), and reduce scarce storage space aboard ship. What is your opinion of such a proposal?

Answer. Storage of blood and blood products is an extremely important area of research. Alternatives to liquid and frozen blood as well as the extension of storage life of these products are being researched. The product and its benefits, accurately described above, is freeze-dried or lyophilized platelets. However, the component of blood most likely to be infused into a patient or casualty is red cells. The DOD frozen blood program is based on the management of red cells not platelets. The process to freeze-dry red cells does not yield a product free of viruses, though a commercial company is working on a process to do this.

The current shelf life for frozen red cells is up to 20 years. Extending the life of liquid red cells held in refrigerators from 6 weeks to 16 weeks is being studied. This will be very beneficial to the Navy since many ship deployments do not exceed 16 weeks. Ultimately, freeze-dried red cells and platelets could replace frozen blood. More research is necessary in these areas and in the area of freeze-drying whole blood.

Question. In fiscal year 1996, this committee encouraged the Defense Department to apply the Hepatitis A vaccine to personnel and their families in high risk areas. Please provide a progress report (including whether or not there is adequate funding) on the actions taken by the Defense Department in response to the committee's recommendation.

Answer. The Department has discontinued use of Immune Globulin (IG) for pre-exposure prophylaxis. We currently have a new DOD policy in draft that currently is being coordinated with the Military Department Surgeons General. That draft states that Hepatitis A Virus (HAV) vaccine will be the therapeutic regimen of choice for pre-exposure prophylaxis against HAV infection. HAV vaccine rather than IG is to be used for pre-exposure prophylaxis unless a specific situation exists which requires immediate passive immunity.

To date, beginning in fiscal year 1995, funding of $38.8 million sufficient to immunize approximately 477,400 persons with HAV has been provided to the Military Departments. The Department has established a goal of achieving HAV immunization of the total active duty force by December 31, 1998. Our plan is to immunize military personnel, and in some cases family members, in the following order of priority:

—Military personnel currently assigned or deployed to high risk areas
—Personnel including Guard/Reserve on mobility to deploy to high risk areas
—Family members and DOD employees assigned to, or traveling to high risk areas
—Accessions and new recruits into the Armed Forces
—Elements of the Selected Reserve
—Other active duty personnel.

QUESTION SUBMITTED TO STEVEN C. JOSEPH

QUESTION SUBMITTED BY SENATOR ARLEN SPECTER

HIV/AIDS RESEARCH PROGRAM

Question. This committee has been a staunch supporter of the HIV/AIDS research program for many years. Why is the fiscal year 1997 program (budget) request only $9.6 million, less that a third of the fiscal year 1996 program?

Answer. Congress directed establishment of the HIV research program in 1986. Funding for the program has been included in the President's budget since that time. The Army HIV research program has as its primary goal the protection of an effective fighting force. Funding of $9.6 million requested in the fiscal year 1997 President's Budget is for the Army's efforts to develop vaccines for the prevention of HIV infection. This request is similar to the President's Budget request of fiscal year 1996. Congress has also appropriated supplemental funds to augment the program. The Army requested $16.6 million for fiscal year 1994; Congress appropriated a total of $44.4 million. The Army requested $14 million for fiscal year 1995; Congress appropriated $39.9 million. The Army requested $9.6 million for fiscal year 1996; Congress appropriated a total of $29.6 million. Some of these additional funds have been used for research on quantitative measures to evaluate infection and for HIV therapy.

The effectiveness of the Army as a fighting force is best assured by prevention of HIV infection. Prevention of HIV decreases casualties and improves unit effectiveness; it protects the replacement blood supply; in the civilian community, prevention preserves the available recruitment population. The Army will continue to concentrate its research efforts on the development of vaccines for the prevention of HIV infection with the funding requested in the President's budget.

NURSE CORPS

STATEMENT OF BRIG. GEN. BETTYE H. SIMMONS, CHIEF, ARMY NURSE CORPS, ARMY MEDICAL DEPARTMENT

INTRODUCTION OF ASSOCIATES

Senator STEVENS. We are going to go into a second panel now, and the Chiefs of the Nurse Corps will appear before the committee. We bring you Gen. Bettye Simmons, Chief of the U.S. Army Nurse Corps; Rear Adm. Joan Engel, Director of the Navy Nurse Corps; and Gen. Linda Stierle, Director of the U.S. Air Force Nursing Service.

We welcome each of you as officers of the distinguished corps, and want you to know we will print your statements in full in the record, and would appreciate any comments you have to make to us, and let us proceed with General Simmons first, if we may. And then we will each have some questions, I believe, by the time you are finished.

PREPARED STATEMENT OF SENATOR INOUYE

Do you have any opening statement, Senator?

Senator INOUYE. Senator, I do have an opening statement, but may I have that submitted and made a part of the record?

At this point may I congratulate General Simmons. You are here, I believe, for the first time, and we will be seeing you many more times, and Admiral Engel, I suppose this is your last time.

Admiral ENGEL. Maybe in this capacity, sir. I hope so.

Senator INOUYE. But we look forward to working with all of you. So I want to thank you for all that you have done for us in assisting us, and as you know, I need not tell you, nurses are very important as far as I am concerned. And you are the saving grace of the medical corps of the U.S. military services.

With that, if I may submit my statement.

Senator STEVENS. Yes, thank you.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Good morning. I join my chairman in welcoming General Simmons, Rear Admiral Engel, and General Stierle here today to discuss the military nursing programs. I would like to congratulate General Simmons, who is appearing before this subcommittee for the first time, on her selection for General Officer and Chief, Army Nurse Corps. I would also like to acknowledge Rear Admiral Engel, who is appearing before this subcommittee for probably the last time as Nurse Corps Director, United States Navy, and thank you for your assistance during your tenure.

As the Nation continues to grapple with rising health care costs and complex health care delivery systems, the role of nurses assumes increasing importance. The military health services system has often led the way in creating new and expanded roles for nurses, but the core of nursing—care and concern for the individual patient—remains constant. This combination has enabled the services to provide health care throughout the world—on land, on ships, and in the air.

So, no doubt, as the military health services systems again lead the way in the development and implementation of health care delivery models, the military nurses will be at the forefront of innovative ways to improve patient access, reduce health care costs, and continue to provide quality care.

I appreciate your attendance this morning and look forward to receiving your testimony.

ARMY MEDICAL DEPARTMENT

Senator STEVENS. General Simmons.

General SIMMONS. Good morning, Mr. Chairman, Senator. I appreciate the opportunity to be here this morning to talk about the continuing efforts on the part of the Army Nurse Corps as we try to improve access to care in our health care delivery system, and we certainly appreciate your continuing efforts on the part of the Army Medical Department.

I would like to share with you that currently there are over 1,000 nursing personnel, officers, and enlisted personnel, deployed all over the world in support of contingency operations. And so we, too, understand the criticality of the medical readiness piece.

As the Army Medical Department continues to downsize, it has indeed significant impact on our Army Nurse Corps. By 1998 there will be a 30-percent decrease in the size of the Army Nurse Corps. Nursing practice personnel, advanced practice nurses, nurse anesthetists, nurse practitioners are a pivotal part in providing cost-efficient primary care access to our customers. And as we take a look at those initiatives related to providing primary care access in a world which is accustomed to taking care of patients in hospital beds, it is critical that we make sure that we carefully look at the emerging roles of nurses in a different type of health care paradigm.

I would like to highlight some of the initiatives of nurses in the health care delivery system. Bassett Army Community Hospital and their Federal partnership has made significant progress, and nurses are an important part of that. They have started a nurse advice line, and in a 1-month period they had over 260 calls. And because of the nursing intervention, only 23 percent of those personnel required appointments, therefore, allowing the appointments to be kept by people who needed to be seen by providers.

The specialized nursing center at Tripler Army Medical Center sees over 650 patients a month. In fiscal year 1995 there was a cost avoidance of $2.7 million as patients came in for IV therapy, chemotherapy, blood transfusions, patient education, those things again that allowed us to move toward where we needed to be in the utilization management arena.

I am very happy to share that because of the support of you, Senator Inouye, and our senior military leadership we now have nine Army nurses in entry-level command positions. The Chief of Staff of the Army has approved the initiative to move forward with nonphysicians being commanders of facilities. We are starting that process, that process that will eventually evolve our organization to one in which we truly have diversity in decisionmaking, the kind of decisionmaking that can only make the Army Medical Department stronger and better.

Again, I would like to thank you for your support, your support of Army nursing, and of the Army Medical Department.

Thank you.

Senator STEVENS. Thank you.

[The statement follows:]

PREPARED STATEMENT OF BRIG. GEN. BETTYE H. SIMMONS

Mr. Chairman and distinguished members of the committee, I am Brigadier General Bettye H. Simmons, Chief of the Army Nurse Corps. It is an honor to appear before this committee to report on the state of the Army Nurse Corps and to discuss our plans for the future. Your continuing support of Army nursing is well known, and I thank you for your efforts on behalf of all Army nurses as well as the entire Army Medical Department.

Army nursing is a team effort incorporating more than 80,000 active, reserve and guard component, officer and enlisted, and civilian nursing personnel. The practice of Army nursing within the multidisciplinary military health care organizations integrates four pillars of nursing—clinical practice, administration, research and education. This dedicated group of professionals provides quality patient care to our active, retired and family member beneficiaries in a variety of settings. Army nursing continues to demonstrate its value in the peacetime health care system while concurrently exercising its unique ability to transition to contingency operations.

This morning I would like to highlight some major initiatives and accomplishments of Army nursing and address some challenges we are currently facing that could adversely affect our capabilities in the future. In consonance with the vision of The Surgeon General, the Army Nurse Corps remains committed to maintaining a world class system for health care. We continue to provide outstanding military leadership and quality nursing services within a framework that demonstrates customer service, team building, and readiness.

READINESS

Readiness remains our foremost mission, and one we cannot relinquish to our civilian counterparts. Our mission is to support our combat forces in war and in peacetime by maintaining and sustaining the well-being of the fighting force. We must be prepared to respond effectively and rapidly to the entire spectrum of potential military operations—from combat operations to operations other than war. In just this past year, Army nurses took part in operational deployments to Bosnia, Hungary, Haiti, Kuwait, Cuba, St. Thomas and Oklahoma City. Today, there are over 1,000 officer and enlisted nursing personnel on temporary duty in support of soldiers involved in multiple exercises and other contingency operations. In addition, there are approximately 2,100 officer and enlisted nursing personnel assigned overseas in Europe, Korea, Japan and Panama.

The Army Nurse Corps' commitment to and support for readiness is evident in our assignment of nurses in the combat medicine research arena. For example, in the Medical Research and Material Command, Army Nurse Corps officers work on a variety of projects designed to better equip, protect, and sustain soldiers in a myriad of operational settings. These jobs include conducting clinical trials to test the safety and efficacy of new drugs and vaccines, to evaluate innovations in trauma and burn care, and to develop solutions to care delivery problems, such as deployable surgical units and field anesthesia equipment.

Reserve components make up the bulk of the Army Medical Department personnel during wartime—up to 70 percent. Thus, the training and integration of our reserve colleagues into the active forces are a primary focus of our readiness mission. This integration is enhanced through the assignment of Active Guard and Reserve (AGR) Nurse Corps officers at each Regional Medical Command to assist reserve medical units in meeting their designated readiness posture. These experienced officers serve as consultants on training, quality management and overall medical readiness requirements, and provide the vital link between active component medical treatment facilities and reserve component units.

One of the most important ways in which nurses contribute to the Army's readiness mission is through the assignment of Army nurses to key staff officer positions. In the Combat and Doctrine Development Directorate at the Army Medical Department Center and School, a nurse officer is responsible for the development and management of combat health service concepts that support Army operations to include Forward Surgical Teams, deployable telemedicine units, and augmentation teams.

Another nurse assigned to the Health Care Studies Branch developed a research project that studied the readiness competencies of both enlisted and officer nursing personnel in all components and provided empirical evidence of our most acute deployment training needs. As a result, we have just completed the first comprehensive training package tailored to teach nursing skills that are unique to "field" settings. This package enables us to make the most efficient use of limited training resources to target our most critical needs and to ensure that our nursing personnel can sustain the highest level of readiness.

PRIMARY CARE/DOWNSIZING

The Army Medical Department continues to mirror civilian health care systems in the transition from inpatient to outpatient-based nursing workload. This shift in the health care delivery model, coupled with the downsizing of the Army Medical Department and the reduction of the civilian workforce within the Department of Defense, has provided the Army Nurse Corps with its most significant challenge. As inpatient nursing requirements decrease and outpatient requirements increase, new models for accurately determining requirements in the outpatient arena must be developed. Nursing personnel losses are compounded by our reliance on the civilian workforce; fifty percent of nursing personnel are civilians. By 1997 we will have experienced a 32 percent reduction in civilian positions in the Military Health Services System. This, coupled with a 30 percent reduction in the Army Nurse Corps by 1998, must be carefully evaluated to ensure that we have the personnel resources available to participate in a redesigned, resource-efficient, wellness focused health care delivery system.

As an integral part of the DOD managed care system, the Army Medical Department requires a strong primary care base that increases access, provides high quality care and contains costs. It is well documented that advanced practice nurses, to include nurse practitioners, nurse midwives, nurse anesthetists, and other Master prepared nurses with clinical specialities, contribute significantly to these imperatives as members of the primary care delivery team.

I'd like to give you some examples of how Army nurses are making significant contributions to facilitate the managed care model. Nurses serve as clinical case managers coordinating care between inpatient and outpatient settings as well as among health care specialties for chronically ill and high risk patients. This greatly improves coordination and ensures that patients benefit from the interdisciplinary team and eliminates costly duplication of tests and treatments. Advanced practice nurses provide primary care services and highly successful health promotion and wellness programs to include: smoking cessation, diabetes control, hypertension control, well-baby, parenting, adolescent health and pregnancy prevention. These programs are highly effective in modifying high risk patient behaviors and reducing hospital admissions for chronic illnesses.

NURSING RESEARCH

The Army Nurse Corps has a rich history in nursing research that dates from 1957 with the establishment of a Department of Nursing at the Walter Reed Army Institute of Research (WRAIR). Army nurses and the leadership of the Army Nurse Corps have sustained a deep commitment to nursing research during the ensuing years.

Sixteen million dollars have been appropriated by Congress since 1992 for military nursing research. The Army Nurse Corps has been very successful in competing for these funds and is reaping the benefits of these studies, improving nursing practice. The value of Triservice nursing research cannot be overstated. These programs allow enough diversity to meet the uniqueness of each Service and promote collaboration between the Services and other professional disciplines in solving common problems through research. A total of 61 research proposals are currently competing for this year's $5 million appropriation.

Studies demonstrating the value of nursing research include:

(1) A study of postoperative wound healing funded during both 1994 and 1995 is yielding some important results. By increasing the amount of post operative fluid replacement in cardiac compromised patients, blood circulation and oxygen delivery is improved, enhancing and promoting wound healing which should ultimately reduce the number of inpatient days following surgery.

(2) An evaluation of a pregnant soldier's wellness program indicates that lower ranking service women have better outcomes when being followed by a nurse practitioner during their pregnancy. These outcomes might be attributed to the nursing ability to assess and intervene in all the needs of the soldiers, not solely their needs related to pregnancy.

LEADER DEVELOPMENT

Downsizing, reorganization and restructuring of the Army Medical Department have brought the Army Nurse Corps both challenges and exciting opportunities. For the past two years, the Army Medical Department leadership has been working diligently on the Leader Development Decision Network study. As a result of the study, the Army Medical Department recommended changing Army policy allowing nonphysicians to command medical treatment facilities. This year, nine nurses are in entry level command positions. The success of these officers provides support to the recommendation for changing Army regulations. We are pleased with the support from the Army leadership and look forward to competing on best qualified boards for these opportunities. We are optimistic that this evolving process will facilitate diversity in decision-making that will result in a stronger Army Medical Department. One of our biggest challenges is to retain adequate Army Nurse Corps force structure to allow officers the flexibility so that junior officers can be developed to compete for these emerging new leadership opportunities.

INITIATIVES IN HEALTH CARE DELIVERY

Army nurses continue to meet the challenges of the new health care delivery paradigm. While ready to respond in any contingency, Army nurses provide peace time health care to our beneficiary population throughout the world. I'd like to cite some examples of nursing initiatives that have positively affected access, quality of care, and cost containment.

Nursing personnel at Bassett Army Hospital in Alaska have implemented a Telephone Advice Nurse Program and have played a major role in the Alaska Federal Health Care Partnership which entails cooperative use of resources within Alaska. The TeleNurse program at Eisenhower Army Medical Center in Georgia includes nurses talking to chronically ill patients daily to make assessments and recommendations that improve their health and prevent emergency room and hospital admissions.

The Specialized Nursing Care Center at Tripler Army Medical Center in Hawaii provides nursing care and treatment to over 650 patients per month as an alternative to hospital admission. Patients previously admitted for treatments such as chemotherapy, intravenous (IV) hydration, blood transfusion, antibiotic therapy, and dressing changes are now treated on an outpatient basis. This Center provides cost effective, comprehensive patient-centered services. In fiscal year 1995, the Center realized a cost avoidance of $2.7 million.

Pre-admission centers at various medical centers are innovative, nursing managed units where patients awaiting surgery receive preparatory tests and treatment on an outpatient basis. Previously, these patients would have been admitted to inpatient wards for these procedures. This customer-friendly initiative resulted in a cost avoidance of over $4 million in just one year in Germany. The Adult Primary Care Network Clinic and Health Promotion Center recently implemented at Brooke Army Medical Center in Texas is a collaborative effort to improve access and quality for preventive, primary and chronic care services. This multidisciplinary center utilizes the expertise of nurse practitioners and clinical nurse specialists and other clinical and administrative support staff to provide resource efficient primary care so that subspecialty physicians can focus their expertise and services on complicated and high risk chronic care patients.

These and many other innovative, cost-effective nursing initiatives are critical in the provision of health care services to our beneficiaries. As resources, both personnel and monetary, continue to be reduced, the development of better and less expensive ways of providing health care have enabled us to almost keep pace with the sustained demand for services. Army nurses proudly demonstrate the value of nursing in our Defense Health Programs.

In closing, Mr. Chairman, I would like to again thank you and the committee for your continued support of Army nursing and the Army Medical Department. Army nursing continues to make significant contributions to the mission accomplishment of the Army Medical Department, and it is my pleasure to share some of those contributions with you this morning.

BIOGRAPHICAL SKETCH OF BRIG. GEN. BETTYE H. SIMMONS

Brigadier General Bettye Hill Simmons is a native of San Antonio, Texas. She graduated with a Bachelor of Science in Nursing from Incarnate Word College and received a Master of Science Degree in Nursing from The University of Texas. She is a graduate of Command and General Staff College and the United States War College.

Brigadier General Simmons entered active duty in 1971 through the Army Student Nurse Program. Her first assignment was Staff Nurse, Hematology/Oncology Ward and Instructor, U.S. Army Practical Nurse (91C20) Course, Brooke Army Medical Center. She was then assigned as ANC Counselor, United States Army Recruiting Command. She has served as Head Nurse, Medical Ward/Coronary Care Unit, 121st Evacuation Hospital and as Head Nurse, Medical Intensive Care Unit, Walter Reed Army Medical Center and as Director, 91C20 Course, Fitzsimons Army Medical Center. She has served as Assistant Inspector General, Health Services Command and as Deputy Chief, Nursing Science Division, Academy of Health Sciences. Brigadier General Simmons was the Chief, Department of Nursing, U.S. Army Medical Department Activity, Fort Polk, Louisiana prior to being assigned as Chief Nurse, U.S. Army Medical Command and designated Consultant to The Surgeon General for Nursing Administration in March 1994.

While still the Chief Nurse, U.S. Army Medical Command, she assumed the duties as the Chief, Army Nurse Corps, on December 12, 1995. Brigadier General Simmons became the Deputy Commander of the U.S. Army Medical Department Center and School on January 5, 1996.

Her awards include the Legion of Merit, Meritorious Service Medal (with 4 oak leaf clusters), Army Commendation Medal (with 2 oak leaf clusters), Army Achievement Medal and the Army Good Conduct medal. She holds the "A" Proficiency Designator, the Army Medical Department's highest award for professional excellence and is a member of the Order of Military Medical Merit.

STATEMENT OF REAR ADM. JOAN ENGEL, DIRECTOR, U.S. NAVY NURSE CORPS

Senator STEVENS. Admiral.

Admiral ENGEL. Mr. Chairman, good morning, Senator Inouye, good morning. Thank you for inviting me to testify on behalf of the Navy Nurse Corps. I am pleased to give you a glimpse of some of our major accomplishments during the past year and to voice my concerns as the Director of the corps.

Peacetime humanitarian and operational missions in a multitude of settings has certainly characterized the Navy Nurse Corps 88 years of honor, courage, and commitment; 3,200 active duty and 1,900 Reserve nurses work together in preparation for and during many crises. This seamless force concept works exceptionally well in support of both routine and contingency missions.

Operational training takes place everywhere Navy nurses are stationed, and remains one of our top priorities. Navy nurses are key participants in joint military exercises throughout the world such as Cobra Gold in Thailand and Viking Thunder in Iceland. They also serve on aircraft carriers, on fleet surgical teams in direct support of amphibious missions, on the staff of the global patient movement regulating center, and with Marine field service support groups. The combination of clinical, managerial, and teaching skills that are constantly honed in an operational environment cannot be matched in a civilian setting.

Turning to the home front, nurses from all services are working together as a result of the Department of Defense managed care program, TRICARE. Nurses are on multidisciplinary TRICARE lead agent staff, and provide valuable patient-focused insight into policy and guideline development. In addition, whether as new graduates on the ward or advanced practice specialists, Navy nurses continue to excel as clinicians and educators. Teaching activities may be focused on patients, on their families, corpsmen, or other staff members. Navy nurses are also tremendously proud of the work they do in health promotions and providing care for patients in their own environment. This is in direct support of the Navy Surgeon General's priority of taking care to the deck plates.

Our complex patient care requirements and the need to manage sophisticated technology are challenges that require a solid knowledge base and scientific foundation. Navy nurses continue to participate in research endeavors which have been so well supported by Congress and coordinated by the Triservice nursing research group. Active duty and Reserve nurses are conducting research that support the studies encouraged in the fiscal year 1995 legislative language.

The force structure of the Nurse Corps required to meet the ever-changing missions and expanded roles for nurses has been severely hampered by the Defense Officer Personnel Management Act of 1981. Legislation to provide permanent grade relief would end a practice of borrowing numbers from other communities. On a positive note, we are very, very thankful for the legislative support we have received for the opportunity to compete for two star rank and Surgeon General. This has opened the door for an expanded career track for Nurse Corps officers, a track that presently includes 15 nurses in commanding officer and executive officer positions, and 19 others who have been screened for executive medicine.

Looking at our more junior officers, most of our newest Navy nurses have come from subsidized education and incentive programs. We must continue these programs, including our most important accession source, the Navy Reserve Officer Training Corps, to ensure that our beneficiaries are cared for by the best qualified nurses.

PREPARED STATEMENT

Mr. Chairman, this is just a snapshot of Navy nursing's contribution to our numerous and varied health care arenas. Thank you for the committee's recognition of the invaluable contribution made by military nurses. We truly appreciate your support of the nursing excellence that is our hallmark, and I will be happy to answer any questions.

Senator STEVENS. Thank you.

[The statement follows:]

PREPARED STATEMENT OF REAR ADM. JOAN M. ENGEL

Mr. Chairman and distinguished members of the Committee, thank you for allowing me to testify on behalf of the Navy Nurse Corps. I am pleased to tell you about some of our many accomplishments and my concerns as Director of the Corps.

The Navy Nurse Corps' Strategic Plan—"Charting New Horizons," encompasses seven goals which serve as the foundation for current and future practices and policies. These goals are: Operational Readiness, Nursing Practice, Quality of Life, Leadership, Participation in Political Processes, Education, and Resources. In my testimony this morning, I will give you a glimpse of some of the activities and programs that are helping us achieve these goals.

Peacetime, humanitarian, and operational missions in a multitude of settings have characterized the Nurse Corps' 88 years of service. The 3,200 Active Duty and 1,950 Reserve Navy nurses work together in preparation for and in the midst of many crises. This "seamless force" concept works exceptionally well at many of our medical facilities. Reserve nurses fill the void left by their active duty counterparts who depart for training exercises and support of special missions. This was just demonstrated at National Naval Medical Center (NNMC), Bethesda, during the recent sea trials of the hospital ship USNS *Comfort*.

The exercise unfolds on the deck of the immense white vessel with the red cross emblazoned on the side. Ten casualty patients arrive simultaneously in the triage area and are immediately surrounded by scores of medical personnel. It looks like mass confusion, but a closer view reveals a systematic order carefully orchestrated by the officer in charge of the triage. The patients are quickly assessed and moved to the Operating Room holding area, the Shock Trauma Treatment Bay, the Intensive Care Unit, and the Inpatient Ward. Everywhere they go, nurses accompany them, providing a reassuring touch, a softly spoken word, a look that says "Don't worry, you're in good hands" while also watching for sudden or subtle changes in the patient's condition.

This very realistic scene was a mass casualty drill using medical algorithms first tested in Exercise Kernel Blitz-95. During the past year dozens of complementary nursing algorithms which includes sequences of observations, decision points, trends, and outcomes were written by a group of subject matter experts to ensure continuity of care when the patient arrives in a nursing care area. These algorithms are part of the Military Medical Training and Evaluation's Computer Aided Education and Training Initiative, which was extensively tested during the recent USNS *Comfort* sea trials (COMFEX–96–3). During this exercise several medical personnel evaluators used hand-held computers which included these algorithms. When the "patients" were stabilized and settled, several senior staff members met to evaluate their care, using computer-generated reports and standard metrics. The vision for expanding this computer capability includes simultaneous transmission of patient care data to: surgeons and anesthesia personnel planning the next round of cases; central supply for restocking purposes; administrative staff planning bed placement and census reports; and to nursing supervisors ensuring the ward has adequate personnel for the next twenty four hours. These computer training modules are not limited to just operational exercises, but can be used in field training, in Reserve units, in treatment facility classrooms, or even on a home computer. The trainee is guided through educational, training, and reference materials and evaluation sequences.

A wonderful blend of goals can be achieved with this modern instructional technique. The Nurse Corps fully supports the Navy Medicine priorities of readiness, people, technology, stewardship, and the health benefit. Exercises like this integrate these goals and keep the focus on our medical department's "true north" direction: operational readiness.

Nurses were also on an amphibious assault ship off the coast of Africa during evacuation operations last month. Navy nurses are assigned to six Fleet Surgical Teams that directly support amphibious assault operations conducted by the Navy and Marine Corps. During and after deployment on various ships, Nurse Corps officers are responsible for all care provided by nurses and by the ancillary staffs in the operating room, intensive care unit, and on the ward. The combination of clinical, managerial, and teaching skills constantly honed in an operational environment cannot be matched in a civilian setting. Other nurses continue to serve in billets on aircraft carriers, on the staff of the Global Patient Movement Regulating Center, and with Marine Field Service Support Groups.

Operational training takes place everywhere Navy nurses are stationed and is certainly our number one training mission. Trauma Nursing Core Courses were held in Guam for Tri-service participants from Guam, Yokosuka, and Okinawa, and in the European Theater, sponsored by U.S. Naval Hospital, Sigonella, Sicily. At the latter course, Navy, Army, Air Force and civilian nurses from Turkey, Germany, and Italy also attended. Many attendees became certified instructors during these events. As a result, their parent commands will receive expanded educational opportunities and limited training resources will be maximized. The staff at U.S. Naval Hospital, Keflavik, Iceland participates in the semi-annual NATO/USACOM operational exercise Viking Thunder and the bi-annual Northern Viking exercise. The current emphasis on jointness is greatly enhanced by these endeavors.

Nurses from all services are working together as a result of the Department of Defense managed care program, TRICARE. In the National Capitol Region, Mental Health and Maternal Child services at National Naval Medical Center have integrated with those of Walter Reed Army Medical Center and Malcolm Grow Medical Center. Issues related to consolidation are actively addressed and resolved by multidisciplinary, tri-service groups intent on keeping the patient as the focus and center of care-giving. Nurses on TRICARE lead agent staffs provide valuable insight in staffing, contracting, performance improvement, and standards of care.

Managed care emphasizes health promotion, care of the beneficiary in his or her own environment, disease prevention, and education in healthy lifestyles. Nursing has always excelled in these areas, and Navy nurses, in particular, are tremendously proud of health promotion programs. In Jacksonville, Florida, the Naval Air

Station was the first DOD activity to receive the Wellness Council of America's "Well Workplace Award". Jacksonville became the first "Well City" in the United States. That the Naval Hospital's nurse-managed Wellness Center was directly responsible for this award should be no surprise to anyone.

Nurses are also excelling in other arenas. The Community Health Nursing Department at Naval Hospital, Lemoore, California provides health promotion/education at the workplace and in the hospital, and home health nursing in the client's own environment. A reserve nurse is the liaison for COMNAVAIRLANT and COMNAVSURFLANT Health Promotion Programs. Along with several other active and reserve nurses, she is developing appropriate programs for carriers and other ships. While health promotion topics vary from site to site according to beneficiary populations, common presentations include: Wellness, Fitness, Tobacco Cessation, Weight Management, Alcohol and Drugs, Back Fitness, High Blood Pressure, Stress Management, Diet and Cancer, Cholesterol Control, Women and Self-Care, Men and Self-Care, and Health Risk Appraisals.

The Navy Surgeon General's goal of "taking care to the deckplates" often involves advanced practice nurses (anesthetists, midwives, and nurse practitioners). Two Women's Health Nurse Practitioners provide women's healthcare at the large training facility at Great Lakes, including baseline female exams and a very large component of health education. This teaching is critical for women heading for increasingly integrated workspaces on ships, aircraft and at shore-based facilities.

Plans are underway for a pierside clinic staffed in part by nurse practitioners at Norfolk, Virginia. The savings in transportation costs and lost work time are expected to be significant, and the benefit of enhanced line and medical department relationships immeasurable. Mental health services are now provided by nurses to recruits facing outprocessing from the Navy, alleviating stressors and preventing more costly hospitalizations or other treatment measures. NNMC Bethesda provides a nurse-operated Diabetes Management clinic, a 6 week education/rehabilitation course for arthritic patients, and nursing case management for women with abnormal mammograms. Two practitioners and a third nurse run an asthma management/education clinic for 300 patients at Naval Hospital, Jacksonville. A comprehensive Pulmonary Rehabilitation Program designed by nurses at Naval Hospital, Great Lakes utilizes a multidisciplinary care approach resulting in significant reduction in hospitalization rates. Naval Hospital, Bremerton has a Postpartum Care Clinic developed by nurses that focuses on early infant care and follow-up. A common thread in all of these efforts is the greater patient satisfaction generated by increased access to care and a sense of participation in care decisions based a broader knowledge of disease processes.

These changing missions and expanded roles for nurses have implications for the force structure of the Nurse Corps. Our complex patient care requirements and the need to manage sophisticated technology are challenges which we are meeting head-on. To ensure a solid, scientific foundation for these changes, Navy nurses continue to participate in research endeavors which have been so well supported by Congress and coordinated by the TriService Nursing Research Group. A research-based practice requires significant clinical experience and a cadre of masters degrees and doctorally prepared nurses.

A commitment to research is exemplified at Naval Medical Center, San Diego in the formation of a Research Utilization Team. Guided by a team of experienced nurses, practice issues and protocols are discussed, revised and implemented to reflect the best and most current research-based guidelines. Nurses at very junior levels are encouraged to scrutinize nursing practice with a critical eye and to work at improving it scientifically, with monitored and evaluated outcomes.

The force structure required to meet the need for educationally prepared, clinically expert, forward-looking Nurse Corps officers has been severely hampered by the Defense Officer Personnel Management Act of 1981. Former personnel policies and restrictive DOPMA grade tables have kept the Nurse Corps from achieving reasonable and timely promotion opportunity to the more senior grades. Legislation to provide permanent relief through a one time plus-up of control grades (O4–O6) is now pending, and would end a practice of "borrowing" numbers from other communities, which are also feeling the effects of right sizing.

Expectation of fair and reasonable promotion opportunity is one factor which assists the Nurse Corps in meeting recruiting and retention goals, a top priority. Many of the recent Nurse Corps accessions have come from subsidized education programs and incentive programs such as the Accession Bonus for Registered Nurses, Nurse Candidate Program and Incentive Special Pay for Certified Registered Nurse Anesthetists. A major accession source is the Navy Reserve Officer Training Corps (NROTC), which has been very effective. While we have been able to meet recruiting goals for generalist nurses, we need to continue these programs to insure our beneficiaries are cared for by the best qualified nurses—Navy nurses.

Full time in-service and out-service training has not kept all nurse specialist shortages at bay. Advanced practice nurses provide patient-centered, cost-effective services to military members and their families across the spectrum of ages, operational settings, and practice environments. Though it is too soon to detect a trend, recent special pay initiatives may not produce the intended effect. Incentive Special Pay for Certified Registered Nurse Anesthetists is not paid at the full $15,000 rate until a long training obligation is met. A second initiative, the inclusion of registered nurses in the legislation permitting pay to non-physicians for board certification, is currently being reconsidered for scope of applicability.

Mr. Chairman, thank you for the committee's recognition of the invaluable contributions of military nurses. We truly appreciate your support of the nursing excellence that is our hallmark—as our strategic plan vision states: "Navy Nursing is Nursing Excellence." I would be happy to answer any questions.

BIOGRAPHICAL SKETCH OF REAR ADM. JOAN M. ENGEL

Rear Admiral [RADM] Engel became the Director, Navy Nurse Corps, the Assistant Chief for Personnel Management and the Chairman of the Health Care Committee of the Interservice Training Review Organization [ITRO] in September 1994. In October 1995, with the disestablishment of Health Sciences Education and Training Command [HSETC] and relocation of policy level functions to the Bureau of Medicine and Surgery, she became the Assistant Chief for Education, Training, and Personnel.

A native of St. Marys, PA, RADM Engel is a 1961 graduate of Mercy Hospital School of Nursing, Buffalo, NY. She received a Bachelor of Education in Public School Nursing from Clarion University, Clarion, PA in 1969. RADM Engel entered the Navy Nurse Corps and was commissioned a Lieutenant in 1969. In 1981, she earned a Master of Science in Nursing with a dual major in Community Health Nursing and Nursing Administration from the University of Alabama.

RADM Engel's clinical nursing assignments include: Naval Hospital, Millington, TN; Branch Medical Clinic, Iwakuni, Japan; Naval Hospital, Charleston, SC; Branch Medical Clinic, LaMaddalena, Sardinia; and Naval Hospitals, Jacksonville, FL, Newport, RI, and Pensacola, FL.

Administrative assignments include Bureau of Medicine and Surgery, Washington, DC, where she was the first junior Nurse Corps Detailer; the first Assistant Chief of Staff, Logistics, Naval Medical Command, Northeast Region, Great Lakes, IL; Naval Inspector General staff, Washington, DC, and Naval Medical Inspector General staff, Bureau of Medicine and Surgery. Prior to her current assignment, RADM Engel was Deputy Director, Navy Nurse Corps, Bureau of Medicine and Surgery.

Her military awards include: Legion of Merit; Meritorious Service Medal (four awards); Navy Commendation Medal (two awards); and National Defense Medal (two awards).

RADM Engel is a Wharton Fellow, a member of the American Nurses Association, Pennsylvania Nurses Association, the Association of Military Surgeons of the United States, the American Organization of Nurse Executives, the Navy Nurse Corps Association, Sigma Theta Tau, the Naval Institute, and holds an honorary fellowship in the American Academy of Medical Administrators.

RADM Engel is married to Lieutenant Colonel Walter R. Limbach, United States Marine Corps (retired).

STATEMENT OF BRIG. GEN. LINDA J. STIERLE, DIRECTOR, U.S. AIR FORCE NURSING SERVICES

Senator STEVENS. General.

General STIERLE. Mr. Chairman, Senator Inouye, it is a privilege for me to have this opportunity to report on initiatives and programs underway within the Air Force Nursing Service. I have submitted my written testimony for the record, and will summarize it here.

First, medical readiness remains job one. The primary core competency for the Air Force Medical Service is aeromedical evacuation. It has become the buffer in a right-sized readiness world. We will be even more dependent upon the Air Reserve component in this new environment. The Air Force Medical Service is using a leadership initiative entitled Mirror Force to bring the three components together into a seamless, medically ready force.

Second, in support of both medical readiness and Mirror Force, the Air Force Nurse Corps has developed its first ever total force strategic plan, which will be a stabilizing force for all three components and provide continuity during leadership transitions in the years ahead.

Third, leadership opportunities for group commander positions have never been better for the Air Force Nurse Corps, for both the active and the Reserve components. We have doubled the number of group commanders this past year for active duty nurses, and over 10 percent of the Air National Guard commander positions are filled by nurse officers. There are now three Air National Guard flag-ranked nurses assigned as Assistant Adjutant General for their respective States.

Fourth, the Institute of Medicine has just completed a critical analysis of the Triservice nursing research program, validating the need and the value for such a program into the foreseeable future. It is being released publicly, even as we speak. The need for military unique nursing research has been validated by this outside independent agency. Your support of Triservice nursing research has enabled us to build a foundation and integrate research findings into our day-to-day practice.

Fifth, the Air Force will have its first family nurse practitioners as part of the provider team this fall. The unique setting at USUHS provides us with an invaluable opportunity for the family nurse practitioner and the certified registered nurse anesthetist to experience a joint education environment preparing them for practice and leadership roles in our increasingly joint service health care world. The school's strong research focus is also helping the Air Force Nurse Corps build a cadre of clinical nurse researchers.

Sixth, Air Force nursing personnel have made significant contributions to delivery of health care, which have improved outcome, improved access to care, and have generated cost savings. The expanded use of advanced practice nurses across the continuum of care with minimum, if any, supervision is invaluable. We are able to quantify in objective monetary terms how nursing is making a difference in the delivery of high-quality, cost-effective health care.

NURSING FELLOWSHIP

My seventh and final point speaks to nursing fellowship. We believe that every aspect of health care delivery can benefit from a clinical presence. To that end, we have created nursing fellowships as a method to integrate the clinical components into health care operations. These pioneers are demonstrating how diversity and a multidisciplinary approach improves the effectiveness and the efficiency of the overall health care organization and the team.

PREPARED STATEMENT

Mr. Chairman and Senator Inouye, the Air Force Medical Service and the U.S. Air Force Nurse Corps continue to provide exceptional care to our beneficiaries anywhere, any time. We are a total force that is fully committed to supporting the world's best Air Force. Thank you for your continued recognition and support of military nurses and the military health services system. It is sincerely appreciated, and it has made a difference in our ability to support our Nation.

Thank you.

[The statement follows:]

Prepared Statement of Brig. Gen. Linda J. Stierle

Mister Chairman and members of the Committee, it is a privilege for me to have this opportunity to report on initiatives and programs under way within Air Force Nursing Services. Your continued support of nurses and of our efforts to provide the finest health care to our beneficiaries is invaluable.

We are undergoing many changes as a result of rightsizing and the evolving managed care environment. There are many opportunities to effect positive changes within the Air Force Medical Service (AFMS) and the Air Force Nurse Corps. Air Force (AF) nurses provide strong leadership and quality nursing care in worldwide humanitarian, peace-time and contingency operations.

LEADERSHIP OPPORTUNITIES

New roles and responsibilities continue to emerge for AF nurses. The change to the Objective Medical Group organizational structure in our medical treatment facilities has opened opportunities for all disciplines to command at both the squadron and group level. Three nurses currently hold the position of Medical Group Commander, and an additional four were recently selected for assignment as group commanders. Presently we have 39 nurses serving as squadron commanders within medical groups, and two as commanders of aeromedical evacuation squadrons.

Several of the major commands (MAJCOM's) have reorganized along product lines in support of the respective MAJCOM's operational mission. The traditional command nurse role has expanded to include responsibility for management of other areas, such as health promotion, environmental, and personnel programs.

Expanded leadership opportunities are also occurring in the reserve component. In the Air National Guard 12 of 100 commander positions are currently filled by Nurse Corps officers. Even though the Air National Guard was the last component to promote a Nurse Corps officer to flag officer rank, they have taken the lead among the three components. They have already secured their place in Air Force history by selecting the first Nurse Corps officer for promotion to Major General. In addition to the traditional one star billet for the Nurse Corps, they now have three flag rank nurses assigned as Assistant Adjutant Generals for the Air National Guard in the states of Kentucky, Nevada and Wyoming.

In 1995, the Office of the Surgeon General reorganized along product lines, with four major directorates designated, each headed by one of the corps chiefs. One of the goals of reorganization was to level responsibility among the general officers assigned. This reorganization also highlighted the importance of readiness and management of personnel programs by establishing them as major directorates. Currently the Chief, Nurse Corps is also the Director, Medical Readiness Doctrine and Planning.

MEDICAL READINESS

As noted in last year's testimony, our first priority continues to be medical readiness; it is job one. The readiness scenario is changing dramatically. Humanitarian missions, disaster relief, and operations other than war throughout the world have increased, and demand additional health care support. We have had nurses deployed to Haiti, Dhahran, Bosnia, Hungary, Panama, Cuba, Kenya, Iraq, and South East Asia.

The multinational and joint service environments inherent in today's medical readiness scenarios provide both challenges and opportunities. Language barriers, cultural differences, varying levels of medical expertise, and incompatible equipment are only a few of the situations encountered by deployed personnel. Resolution of these issues is being pursued in part through changes in pre-deployment preparation and training. The AF aeromedical evacuation experts are taking the leadership role in equipment standardization. Last year I briefed you that a tri-service task force was formed to address standardization of medical equipment for inflight use, and I am pleased to share that agreement on 17 patient movement items has been achieved and funded.

The U.S. military medical services also have the opportunity to forge new relationships with former adversaries. With our robust medical capability, the potential exists to provide assistance to former Soviet bloc countries in improving the quality of their medical training and health care services. The medical world is opening up doors that were once closed to us, and nursing personnel are heavily involved in these partnership activities.

While Air Force nurses have provided vital services in contingency operations throughout the globe, disaster situations on the home front have also given us unique challenges. Air Force nurses have assisted in several disaster scenarios this past year. Highlights include the following: Capt Marion L. Duncan, USAF, NC assisted in saving the life of another at great risk to himself in the aftermath of the Oklahoma City bombing. He was one of 10 recipients of the Nurse Hero award presented by the American Nurses Association and American Red Cross on 6 May, 1996. In October 1995, personnel from Luke AFB, Arizona rendered on-scene care to over 100 casualties during the AMTRAK derailment. Twelve victims arrived at Luke's emergency room for treatment.

Any discussion of medical readiness would be incomplete without including the reserve components. We aggressively continue to support the strategy in place called Mirror Force that I referred to last year. This is an AFMS leadership initiative designed to bring the active and air reserve component together into a seamless, medically ready force. The goal of Mirror Force is for members from the total force to be capable of being used interchangeably, equally prepared for any deployment.

TOTAL NURSING FORCE STRATEGIC PLAN

Nursing Services is stepping out smartly to support Mirror Force. Recognizing the importance of continually planning for future possibilities as well as the realities of today, a total nursing force cadre of senior officer and enlisted members from the Active, Reserve and Guard components met in November 1995 to engage in strategic planning. The group of 43, representing a cross section of nursing specialties, developed a vision, goals, and objectives that will give us a clear focus for policy and program development.

The goals in nursing's strategic plan are in direct line with the Military Health Services System and Air Force Medical Services strategic plans. We are providing nursing's unique perspective in support of these very important strategic plans. Our plan will be a living document and a stabilizing force in this world of ever increasing change and challenges and provide continuity during transitions to new leadership in the years ahead.

NURSING RESEARCH

The need for military-unique nursing research has never been greater. Readiness-related topics are ripe for systematic study. Rightsizing, managed care, emerging technologies, and prevention are only a sample of other areas that present boundless opportunities for researching the most effective and efficient methodologies, structures, and skill mix for delivering nursing care and health services in the military environment.

AF nursing leaders identified the need and value of increasing our emphasis on nursing research during our Total Nursing Force strategic planning. Recognizing that AF nursing research efforts are at an embryonic stage, one of our initiatives is placement of doctorally prepared nurses to optimize our efforts toward both conducting research and integrating research findings into practice. Our proposed plan is to place a nurse researcher at four of our major medical centers. These medical centers are conveniently located in four TRICARE Regions (4, 5, 6, 10). Research nurses could serve as consultants for all military medical facilities in the region, optimizing Tri-Service utilization of these resources. Wilford Hall Medical Center will be the first site, and a doctorally prepared nurse has been selected for assignment this summer.

Additionally, the Tri-Service Nursing Research Group (TSNRG) offers the USAF Nurse Corps the opportunity to enhance the growth of our relatively new nursing research program. The TSNRG program nourishes the AF Nurse Corps during our concerted efforts to build a foundation where research is the cornerstone for clinical nursing practice.

Congress increased Tri-Service nursing research from $1 million in 1992 to $5 million for fiscal year 1996. Of the 77 proposals submitted and approved during the last 4 years, 12 publications/presentations were Air Force proposals. Air Force nurses have submitted 10 proposals for fiscal year 1996. Current projects include

"History of Flight Nursing in the USAF Nurse Corps", "Readjustment of Gulf War Veteran Women: A Follow-up," and Grant Writing Workshops for novice researchers. Completed studies include: "Health and Psychological Readjustment of Gulf War Women," "Healing Touch", and "Impact of Story Telling on Burnout and Nursing Expertise." Findings from the story-telling study have been integrated into the Nurse Transition Program conducted for inexperienced nurses at several of our Medical Treatment Facilities (MTF's). We are in the process of reviewing the findings of the other studies to determine if the recommendations should be incorporated into practice, policies, or training.

The shift from inpatient to ambulatory care presents many challenges within our Services and requires us to assess the nature of care being provided by our ambulatory nurses. Nursing research focused on the ambulatory setting will facilitate the development of appropriate policy and practice guidelines. It is with this paradigm shift in mind, that I am pleased to announce efforts are presently underway to deploy a Tri-Service survey addressing the role of ambulatory care nurses in the military setting.

The TSNRG, with the concurrence of the three military Nurse Corps chiefs, contracted with the Institute of Medicine (IOM) to review and evaluate the overall program. In the USAF Nurse Corps, we are very interested in enhancing the structure to support research activities related to military health care. I eagerly anticipate the assessment and recommendations of the IOM. This information will be used by the TSNRG to develop a strategic plan to provide us with our vision of military nursing research in the future and what we must do to achieve our vision.

We appreciate your efforts in supporting military nursing research. In addition to strengthening nursing-specific research, we would like to encourage collaborative research with other disciplines with a focus on improving patient outcomes and alternate health care delivery systems in both peacetime and contingencies.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS)

The USUHS Graduate School of Nursing was formally authorized in fiscal year 1996 and is now incorporated into the overall USUHS budget. The first Air Force class of 10 Family Nurse Practitioners (FNP) graduated in May 1996. The first class of Certified Registered Nurse Anesthetist (CRNA) students will complete their studies in September 1996.

The FNP's, the first ever in this role in the Air Force, will work in partnership with Family Practice physicians in delivering primary care. As we continue to strive for more efficient, high quality and cost-effective care, we anticipate an increased demand for FNP's. They provide a comprehensive, high demand service and free up physicians for the more critical and specialized patient treatment roles. Applications for the FNP training are increasing, and we anticipate eight students starting in August 1996. Recently unit training codes were revised to better utilize the skills of FNP's and other Advanced Practice Nurses in contingency operations.

CRNA's continue to provide a critical wartime skill, plus provide the majority of anesthesia services during peacetime. CRNA's function as the only licensed independent anesthesia practitioners at 24 of the 55 MTF's that provide anesthesia services, and deliver cost-effective, high quality anesthesia care.

The unique environment at USUHS provides an invaluable opportunity for the FNP and CRNA students to experience a joint education environment preparing them for practice and leadership roles in our increasingly joint-service health care environment.

NURSING FELLOWSHIPS

We believe that every aspect of health care operations needs a clinical presence. To that end, we have established nursing fellowships in diverse areas. We currently have fellows in Nursing Services as well as Manpower, Managed Care, TRICARE Lead Agents, Clinical Quality Management, Readiness, and Prevention/Health Promotion. These fellowships provide Nurse Corps officers in-depth exposure to, and active participation in, HQ USAF and MAJCOM level planning and programs. In addition, nurses provide a unique clinical perspective in these specialized areas. In 1995 we added fellowships with civilian industry, to include managed care organizations and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The congressional fellowship, which rotates annually between the three military Nurse Corps, has been an especially tremendous learning experience for our up-and-coming nurse leaders.

Follow-on assignments are carefully managed to reap the benefits of fellowship experiences. Some of the fellows return to AF medical treatment facilities in clinical leadership roles, with the opportunity to apply new knowledge and skills to improve delivery of health care throughout the entire organization. Others are assigned to specialty areas. For example, the JCAHO fellow will be a member of the AF Medical Inspector General team, and readiness fellows will be assigned to various contingency planning positions at MAJCOM's. Managed care fellows assignments include TRICARE lead agents and utilization management functions at MAJCOM's and in our medical centers. Air Force nurses who completed congressional fellowships have gone on to positions in which they have utilized their knowledge to educate senior leaders of the AFMS in the congressional process. One is currently the Consultant to the Surgeon General for Congressional Affairs.

RECRUITING AND RETENTION

We continue to recruit high caliber health professionals, and the accession bonus for nurses greatly supports our recruiting efforts. Currently our most difficult recruiting and retention challenges are with Operating Room nurses, Pediatric Nurse Practitioners, Obstetric nurses, and Neonatal Intensive Care nurses.

Thanks, in part, to continuing congressional support with special pay, for the first time we are 100 percent manned in fully qualified CRNA's. The increase in incentive pay for CRNA's to $15,000.00 proved to be a tremendous boost to recruitment and retention. As our revised medical readiness plans solidify, our future CRNA requirements will become clear. If we do not continue incentive pay for CRNA's, historical data has shown that we will not be able to recruit and retain sufficient numbers to meet wartime requirements. The contributions of CRNA's extend beyond delivery of anesthesia care. For example, during deployment to Zagreb, Croatia, the CRNA's provided a significant amount of training to increase the clinical nurses' and medical technicians' capabilities in caring for critically injured patients.

In an effort to provide an incentive for the highest level of professional achievement and to treat all health care providers equitably, the National Defense Authorization Act of Fiscal Year 1996 amended Section 302c(d)(1) of title 37, United States Code, whereby Nurse Corps officers in the Army or Navy, or officers of the Air Force designated as a nurse, may be authorized to receive Board Certification Pay (BCP). The nurses must be a privileged health care provider, have a post-baccalaureate degree in the specialty, and be certified by a professional board in the officer's specialty. Nurse practitioners, certified nurse midwives, and CRNA's could be eligible for BCP if they meet the criteria.

With changes in civilian healthcare, the demand for Advanced Practice Nurses is increasing. Initiatives such as board-certification pay for these nurses will be of tremendous assistance in helping us retain and recruit sufficient numbers to meet war time and peace time requirements. We sincerely appreciate your continued support in these initiatives.

NURSING INITIATIVES

Air Force nursing personnel have made significant contributions to the delivery of health care, which have improved outcomes, improved access to care, and generated cost savings. Nurses are heavily involved in utilization management, case management, discharge planning and health promotion. Nurse-managed clinics and increased emphasis on a collaborative, multidisciplinary team approach to health care are reaping benefits for our patient population.

Retrospective data from Keesler AFB and Elmendorf AFB show a combined $251,923 annual dollar savings in these facilities' nurse-managed Coumadin Clinics.

The U.S. Air Force Academy's (USAFA) nurse-managed Cardiac Rehabilitation Clinic has saved $150,000 during the past 16 months. The program is unique in its design compared to those in the civilian sector; it includes 36 sessions of monitored exercise, 15 cardiac education classes and a comprehensive preadmission assessment. The civilian programs do not include a formal education series or conduct preadmission exercise treadmill testing.

USAFA also has a nurse-managed pediatric conscious sedation service for tomography studies which has saved $26,000 during the first quarter of 1996. Parents of pediatric patients no longer have to transport their child to a downtown facility for this study, and the procedure time is shortened when conducted in a military facility.

You may recall last year I shared with you our fledgling efforts in the home health care arena. I am pleased to report that the 52nd Medical Group at Bitburg/Spangdahlem AFB, Germany has established the first home health care program in the Air Force Medical Service. After one year, nursing personnel made over 1,000 home visits and saved the sponsoring facility more than $59,000. The program maximized efficiency of health care delivery and provided the right care at the right place. The Home Health service was fully accredited in November 1995 by JCAHO.

This is the first such accreditation in the history of the Air Force. The lack of home health care services in civilian communities overseas make these optimal locations for military nurse-managed home health programs, and the Bitburg/Spangdahlem program is a prototype for other overseas bases to emulate.

Nurses are key players in the AFMS' efforts in preventive programs geared to improving health status. Prevention is recognized as a vital component in the Air Force readiness program; a fit, healthy force enhances our war-fighting capability. Additionally, prevention is one of the key pillars in managed care and reengineering peacetime health care delivery, as the focus has changed from treating illness to preventing disease. Put Prevention into Practice (PPIP) is a clinical preventive services program focused on assessing and improving health status of beneficiaries. The nurses' educational background and clinical experience make them ideal leaders/managers in this program. Health and Wellness Centers (HAWC's) are corporate wellness centers where fitness assessments are performed. These centers provide fitness prescriptions and assist individuals change risk-taking behaviors and effect positive life-styles. The nurses' experience and skill in patient assessment and patient education make them pivotal in the referral and intervention process for six basic Health Promotion areas—stress management, nutrition, hypertension, fitness, drug and alcohol abuse education, and tobacco cessation. To date, out of 85 bases we have 40 operating HAWC's. The 40 centers have 123 staff members, 52 of whom are Nurse Corps officers.

The expanded use of master's-prepared Advanced Practice Nurses (APN) across the continuum of care with minimum, if any, supervision is invaluable. As anticipated, APN's provide outstanding quality of care at a significant cost savings when compared to physician providers.

An aggressive Case Management program managed by APN's decreased length of stay (LOS) in three areas at Wilford Hall Medical Center (WHMC), resulting in significant cost savings. All pediatric patients in the programs are followed across the health care continuum by a Pediatric Clinical Nurse Specialist. In the Pediatric Cystic Fibrosis Center, the cost of the Case Management program minus the cost per patient admission resulted in a savings for fiscal year 1995 of $177,000 and $35,532 for three patients in the first quarter of 1996. The LOS for hospitalized cystic fibrosis (CF) patients is 14 to 21 days shorter than the national average. Clinical practice guidelines for home care of pediatric CF patients are being adapted by the CF Foundation for national use. WHMC has been designated the Tri-Services DOD Center of Excellence for Cystic Fibrosis. The LOS for the pediatric liver transplant patients decreased by seven to 12 days with a $100,000 savings for 1995. Patients enrolled in the Pediatric Diabetic Education Program decreased LOS three to four days with cost savings of $23,400 in 1995 and $7,800 the first quarter in 1996. We feel that the advanced practice pediatric nurse is uniquely prepared to identify these opportunities to save significant inpatient dollars by an emphasis on patient and parent education.

In October 1995, Travis AFB, California, opened a position for the only active duty nurse radiology interventionist, a new arena for registered nurses. Working in concert with physicians, technicians and currently a nurse from the Veterans Administration, the team provides essential support, treatment, and education that increase patient understanding, cooperation and safety. This new specialty has improved the continuity of care and satisfaction of patients undergoing therapeutic radiology interventions.

Nursing is also leading the way in establishing organization-wide competency assessment programs in the Air Force Medical Service. This is critical in order to assure all nursing personnel, both licensed and unlicensed technical personnel, meet established practice standards and JCAHO standards. As similar standards evolve for other disciplines, such as dietary and cardiopulmonary, the nursing model for assuring competency is being applied. This is another way nurses are promoting collaboration in the health care environment.

These few examples demonstrate the important contributions of Air Force nurses to the health and well-being of our most important customers, our patients, in a fiscally responsive manner.

CLOSING COMMENTS

Mister Chairman and distinguished members of the Committee, the Air Force Medical Service and the USAF Nurse Corps continue to provide exceptional care to our beneficiaries and support the world's best Air Force. We have demonstrated that we are a total force that delivers the best care, any time, and anywhere. Thank you for your continued recognition of and support for military nurses.

BIOGRAPHICAL SKETCH OF BRIG. GEN. LINDA J. STIERLE

Brigadier General Linda J. Stierle is Director, Medical Readiness Doctrine and Planning and Nursing Services, Office of the Air Force Surgeon General, Bolling Air Force Base, Washington, District of Columbia.

Brigadier General Stierle was born in Greenville, South Carolina into a military family. She spent her childhood years traveling around the world as a dependent of a career non-commissioned officer. She attended three different high schools during a four year period, graduating from Lincoln High School, Lincoln, Nebraska in 1966. She graduated from Spartanburg Hospital School of Nursing, Spartanburg, South Carolina in September 1969, where she received the Wallace Award for Nursing Excellence. Brig. Gen. Stierle received a direct commission in the Air Force Nurse Corps as a second lieutenant in 1970.

Brigadier General Stierle is married to Dennis Stierle from New Orleans, Louisiana. He is a retired employee of the Department of Defense Management and Cost Analyst.

USUHS

Senator STEVENS. Thank you very much.

Your graduate school of nursing is part of the Uniformed Services University that we previously talked about with the prior panel. Tell us what your problems will be if that school closes.

General Simmons.

General SIMMONS. Yes, sir; we currently have nurse practitioners—excuse me—we currently have nurse anesthesia students attending the USUHS program. We will be starting to send family nurse practitioners there in 1997. We have been able to increase our talent pool of nurse anesthetists in the Army Nurse Corps because of the USUHS initiative.

Certainly, the opportunity to train jointly with our other services adds that multidimensional perspective that makes us more joint in terms of how we operate. We certainly appreciate having the opportunity to have nursing students at USUHS, and we believe that it is an enhancer that will make us more prepared in the medical readiness arena.

Senator STEVENS. How about you, Admiral?

Admiral ENGEL. I concur with General Simmons. I have really had the opportunity to work with Dr. Abdellah right from the outset in getting the graduate school of nursing established, and we have for the first time this year placed three of our Navy nurses in the anesthesia program.

My philosophy is if we fight together we train together, and I think that that is a very important but almost intangible benefit that may get lost in the whole discussion about USUHS. Certainly, we can go ahead and we can train from civilian sources, but the quality of the product is not the same.

Senator STEVENS. General, what do you think?

General STIERLE. Well, I concur with both of my counterparts, but I would just add a few other thoughts, sir. Certainly again, as both of them have spoken to the joint environment, it is an experience that we cannot obtain in a civilian setting. And again, this leads to increased cooperation in that joint health services world that I made reference to in my opening comment.

The other experience, though, that this school provides us that a civilian school cannot provide us with is a readiness focus. In each one of their courses these individuals are asked to think about if you had to provide this care in a contingency operation, how would your practice have to change? And so again, it is a constant thread of preparing individuals for contingency situations.

Finally, in this particular academic environment nurses and physicians are sharing some classes. I believe there is great value to collaborative education and research. And again, USUHS provides us with an opportunity to do that. It could actually potentially become a benchmark, not just for the military system but for civilian academia in terms of trying to better utilize our limited financial assets to support our educational system.

Senator STEVENS. There is an explosion, really, of demand for nurse practitioners and for nurse anesthetists. I wonder, do they all need master of science degrees? Do you really need a master of science degree to have people practice as nurse practitioner or nurse anesthetist?

General SIMMONS. Yes, sir; the American Nurses Association standard for nurse practitioners is masters preparation, and that was effective in 1996. So that is the national health care standard, a masters prepared nurse as a nurse practitioner.

Senator STEVENS. All three services are recognizing that?

Admiral ENGEL. Yes.

General STIERLE. Yes.

Senator STEVENS. It puts a very high level of educational attainment on nurse practitioners as compared to prior years.

General SIMMONS. Well, I think if you look at the scope of practice and what we are asking of nurse practitioners, that that is indeed, sir, a reasonable standard. Again, as we move toward a resource-efficient primary care health care model in which we are trying to improve collaboration with our medical corps colleagues to make sure that we provide cost-efficient, safe primary care access, the masters degree preparation I think helps ensure that we can provide save practice.

Senator STEVENS. We have in Alaska a system of community health aids in our villages, some 170 villages. We probably have 150 of these people now. We are lucky to get high school graduates, and they are doing the same thing your people are doing almost. They are the only medical providers in their village of up to 500 people.

General SIMMONS. Sir, I have heard of the program in Alaska. I do not know if there are any risk management issues or any quality of care issues that have occurred as a result of that initiative. Certainly, whatever is available is better, obviously, than absolutely nothing. But the issue is how much risk you are willing to take in the health care delivery system in providing care to our beneficiaries.

CORPSMEN EDUCATION

Senator STEVENS. Do you still train corpsmen?

General SIMMONS. Yes, we do, sir.

Senator STEVENS. What level of education does a corpsman have to have?

Admiral ENGEL. Currently in the Navy, a corpsman must be a high school graduate. But we certainly have corpsmen who possess baccalaureate degrees. And because of upward mobility programs in the Navy we have the corpsmen coming in with varying types of degrees and varying types of experience; consequently, we have a much more mature force.

Senator STEVENS. Thank you.

Senator Inouye.

Senator INOUYE. Thank you very much.

Last year the Defense authorization bill provided for the nurses to compete for the three star Surgeon General's position. But it is almost a cruel hoax because at the present time there are only three flag positions, one for each service. There are no two-star positions yet. We are going to try to amend the law so that the Army and Air Force general officer positions would be protected by law. I believe the Navy is the only one at the present time. But I hope that we will succeed in this because it is about time we began to recognize the contributions that the nurses make to the quality of life for our men and women in the services.

PAY INCENTIVES

I would like to ask a few questions about pay incentives. I notice, for example, that our nurse anesthetists receive the ISP, or the incentive special pay; however, there is a special treatment that we provide for our nurses. For example, ISP payment to physicians who are not required to first complete their education payback time, but nurses are required to do that, are they not?

General SIMMONS. Yes, sir.

Senator INOUYE. Is there any justification for this differential?

Admiral ENGEL. To be perfectly honest, sir, I do not really believe that there is. I think that this is totally inequitable treatment, and basically it had to do with the way the legislative language was interpreted.

Senator INOUYE. So you believe that it would require an amendment?

Admiral ENGEL. I am not sure what the process would be. I do not think that the problem is on the legislative side of the house. It is the interpretation of the legislation.

Senator INOUYE. Does this affect recruitment and retention?

Admiral ENGEL. It has certainly been an issue with the anesthesia community.

General STIERLE. I think in the past, sir, it may have adversely impacted recruitment and retention in the Air Force Nurse Corps. Right now what happens is they can start drawing the $6,000 immediately, and then they can draw the full $15,000 upon completion of their payback time for educational benefits. But with the $15,000 incentive pay, and now coupled with the board certification pay, we have really decreased the gap between what CRNA's make in the military environment and what they make in the civilian world.

So for the first time ever in the history of the Air Force Nurse Corps, we have achieved our authorizations in terms of having sufficient numbers on active duty to meet our needs at this point in time. But it is still an issue of inequity that I think the nursing community at large would like to see addressed.

Senator INOUYE. We will try to bring about some equity here.

All the services have spoken about operational deployments overseas. May I ask all of you how many nurses are now deployed overseas? Army?

General SIMMONS. Sir, in the Army, if you look at Army nurses and enlisted soldiers with medical MOS's, there are about 1,000 right now, sir, in different contingency operations.

Senator INOUYE. The Navy?

Admiral ENGEL. Sir, I am sorry, I do not have that number available. I would need to get that to you.

[The information follows:]

As of 25 June 1996 there are 12 Navy Nurse Corps officers operationally deployed overseas and 491 Nurses stationed outside of the continental United States.

RECRUITMENT

Senator INOUYE. Air Force?

General STIERLE. Ours is a lot smaller because, again, Joint Endeavor, the bulk of the operation is an Army operation. So it is close to 100, and those are individuals in the aeromedical evacuation world supporting Joint Endeavor.

Senator INOUYE. General Simmons, I am certain you are aware that the Army is seeking funds for the UH–60Q. Are nurses receiving training at this time to serve on that aircraft?

General SIMMONS. Currently, sir, no, we are not. But in the medical reengineering initiative, if indeed we do receive the funding for the Quebec and we are able to take care of more acutely ill patients, part of that package is so that we will be able to provide more acute care for a more unstable patient. And nurses are part of that, yes, sir.

Senator INOUYE. Are we still having problems in recruiting and retaining nurses? Not just the specialty, but in general?

Admiral ENGEL. Sir, we are not having any difficulty at all recruiting for our generalists, but we do have difficulty meeting our recruiting goals for our specialists such as nurse practitioners, nurse anesthetists, and nurse midwives because of the fact that there is currently in the civilian world such a high demand for those specialties, as well.

General STIERLE. In terms of actually meeting our recruiting goals this year, no, sir. Overall there is not a problem. Although I will tell you that over the last 4 years one of the trends that we have noted is that where we used to have our goals met by maybe the April-May timeframe, it now takes us almost all the way up to the end of the fiscal year to meet that goal.

We do experience, though, some difficulties in the specialty areas, and not just anesthesia. Actually, as I said earlier, anesthesia is not a problem at this time. Where we do experience some problems is with operating room nursing; also with our OB/GYN nurses and our pediatric nurse practitioners.

Senator INOUYE. And the Army?

General SIMMONS. Sir, our situation is a little different. The Army Nurse Corps has taken some significant force structure reductions over the last 2 to 3 years, so our pipeline is in very, very good shape based on ROTC initiatives in particular.

We do have in place the training programs that we need to train our nurses for specialty care. The bigger issue for us in terms of recruiting and retaining is making sure that we keep the right talent pool in our health care delivery system as we work through the new health care delivery model so we know where nurses need to be as we try to facilitate wellness for our beneficiaries.

Senator INOUYE. If you are to compete with others for flag rank positions, I would suppose you would need a lot of command experience, executive position experience. Do you have enough of that in the Nursing Corps?

Admiral ENGEL. Yes; sir, I think from the Navy nurse perspective, we will. As I mentioned in my testimony, there are 15 nurses now who are in commanding officer and executive officer positions, with 19 others who have been screened. Admiral Koenig is very much committed to ensuring that we are afforded the same opportunity as our male counterparts in order to reach and be competitive for the two star rank.

I will tell you that in August of this year I will be moving to a new position. I will continue to remain as the Director of the Nurse Corps, but I will take over as the Assistant Chief for Operational Medicine in Fleet Support. So I think that is a very strong commitment on Admiral Koenig's part to ensure that that happens.

Senator INOUYE. Well, congratulations.

Admiral ENGEL. Thank you.

COMMAND OF MEDICAL TREATMENT FACILITIES

Senator INOUYE. What is the situation in the Army?

General SIMMONS. Again, sir, we are beginning the process. It was just signed by the Chief of Staff of the Army to allow nonphysicians to command medical treatment facilities. So we are starting the evolution of our process. We have to resocialize the Army Medical Department so that you do not see that a nurse does this and a physician does this, a Medical Service Corps officer does this or that, or a dentist does this. So we are beginning that process in our organization. So I would say that there is indeed progress in getting to that point.

The other piece of that is that we are working on the comparability acknowledgement, and I will take entry level. Should it necessarily be that an Army nurse has to be a company commander to get that entry level experience, can you not say that being a head nurse in a medical center is equivalent experience to being a company commander in terms of scope of responsibility? Certainly, there are some elements that are not there, but can we move to a system that says these are comparable types of jobs, so that if you are the chief nurse of a small MEDDAC or the chief nurse of a large facility, why can that not be recognized as being comparable to being a battalion commander in terms of span of control and numbers of people that you are responsible for?

So it is having those opportunities, but the rest of that is indeed recognition that you do not have to have exactly the same job, but you should get recognition based on what that contributes and the complexity of the work, sir.

Senator INOUYE. Having served with company commanders and chief nurses, I can tell you that they are not only comparable, they may be a little better. [Laughter.]

General STIERLE. Since 1987, the Air Force Medical Service has really allowed all corps the opportunity to compete for medical group commander positions and actually be assigned to those. We have two levels of command available to us, at the squadron level and as the medical group commander. The squadron level is fairly recent; actually, October 1994.

Last year when I spoke to you we had 58 nurses in squadron commander positions throughout the Air Force Medical Service. That number has now decreased this past year to about 41. But at the same time 1 year ago we had three nurses who were in medical group commander positions, and that number has doubled—actually more than doubled. It has increased to seven. So command is certainly the key, I think, to flag officer promotions.

In September 1994, the first ever two star board was opened to other than medical corps and dental corps officers. In September 1995, actually in direct response to a request, I believe, from this committee asking each one of the services to tell them what their plan was to ensure that all corps would have increased opportunity to achieve flag officer rank in the future, we made another change in the Air Force Medical Service, and that was to make our one star board now open to all corps. So in September 1995 we had a single one star vacancy. All corps were able to compete. Any colonel with 2 years time in grade was eligible.

I think that this is a step in the right direction. But my concern is that when we are all competing together for those same positions that right now as we speak today we do not have a cadre of people within each corps who have had comparable experience to our physician counterparts. To date, only physicians have been Surgeon Generals. So if I am a Nurse Corps officer or a Biomedical Services Corps officer or a Medical Service Corps officer competing for that one star position, and I have never been the command surgeon of a major command, no matter how good my record may be, it is probably not going to be as competitive.

So personally, I do believe there is some value in mandating or requiring one star positions for all of the medical corps until such time as we have sufficient inventory within each corps to really ensure equal competition when promotion boards are open to all corps.

Senator INOUYE. I am certain I speak for the chairman. We would like to see at least one two star facing us before we leave this committee.

Thank you very much.

Senator STEVENS. You mean one two star in each service.

Senator INOUYE. He goes one better than me. [Laughter.]

Senator STEVENS. Thank you very much. It is nice to be with you.

Are you related to J.J.?

General SIMMONS. No; I am not.

Senator STEVENS. Thank you very much. It is nice to see you.

SUBCOMMITTEE RECESS

This will complete the hearing for today.

[Whereupon, at 12:05 p.m., Wednesday, June 5, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1997

TUESDAY, JUNE 18, 1996

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:29 p.m., in room SD–138, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senator Stevens.

NONDEPARTMENTAL WITNESSES

STATEMENT OF DR. GERALD KRUEGER, AMERICAN PSYCHOLOGICAL ASSOCIATION

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Let me welcome the witnesses who will testify today. I hope you understand why we had to shift this schedule. We now are under a very tight timeframe trying to get this bill to markup tomorrow, and Senator Inouye, our vice chairman, was scheduled to be here with us, but he is returning to Washington later this evening and is not in the city now so he will not be in attendance.

We have a large number of organizations that have requested to testify, and unfortunately, because of other meetings, I must ask each witness to limit his or her remarks to not more than 4 minutes today. We have another meeting right after this.

I want you to know that all of your written statements will be printed in the record in full. It is my hope that you will honor this request because if you do not, there will be witnesses here today we will just be forced to ask to put their statements in the record without making comments.

I may have some questions from time to time, and if so I will try to make them short too.

Your participation in this subcommittee's work is very timely. We will be reminded of your comments just as we proceed to the markup. That is the first stage of the approval of this bill in the Senate, where we present our bill to the subcommittee members, the Senators who are members of the subcommittee.

Following that, we will take the bill to full committee. Hopefully, we will get it out of full committee and to the floor this week. We are trying to get this bill out ahead of the pack, you might say, and do everything we can to prevent a veto of this bill as we did this past year.

Let me thank you all for your interest. I know that this is a very controversial bill in many respects, and we do appreciate your taking the time to come and give us your point of view. Again, we do review the record, and we do review the statements that are made by everyone.

As you can tell, there will be no other Senators here today. There are just a whole series of meetings going on around the building. We do have the Armed Services bill on the floor now, and many Members are reviewing that to determine whether or not they are going to offer amendments on the floor to that bill.

So let me proceed and if you do not have the schedule it is on the table. We will follow that schedule, and our first witness is Dr. Gerald Krueger of the American Psychological Association. He will be followed by Dr. Ralph Powe, vice president for research at Mississippi State University.

Yes, sir.

Dr. KRUEGER. Mr. Chairman, I am Dr. Gerald Krueger, and I represent the American Psychological Association, or APA, a professional and scientific organization of 148,000 members and associates, many of whom conduct behavioral research relevant to the military.

A crucial component of national security is DOD support for 6.1 basic research in the Nation's universities. The partnership between universities and DOD has helped provide the research base so critical to the development of current weapons systems and personnel practices. This investment in the Nation's universities has helped produce the most technologically sophisticated military in the world, and is necessary to maintain the unchallenged U.S. defense capability.

DOD's support of psychological research dates from World War II, when efficient testing and classification of new recruits was critical for the rapid buildup of U.S. forces. Today, the contribution of psychological research ranges from improvements in the selection and assignment of personnel to training and maintenance of skills, to design of human machine interface, to efficient and safe operation of complex systems.

The 6.1 budget decreased in fiscal year 1996. While the decrease was less than in some other portions of the budget, it led to curtailment of promising research programs and increased the uncertainty and the commitment to long-term projects.

We urge you, the committee, to support the fiscal year 1997 request for 6.1 basic research for $1.2 billion, a modest 2-percent increase over fiscal year 1996.

I would like to discuss a few of our research interests.

As for the Army, the APA was very disturbed to learn of the Army's plans to eliminate the Army Research Institute for the Behavioral and Social Sciences, or ARI, by zeroing out its budget in fiscal year 1998 and beyond. We would like to thank some of the members of the subcommittee for their support of ARI, and in particular, Senator Inouye.

ARI is the Army's primary manpower, personnel, and training research organization. It supports research to help formulate the Army's policies and training practices in areas such as the selection and assignment of personnel, the development and maintenance of their skills, especially in the face of increasing demands posed by advanced technologies and accommodations to the increasing diversity of our military population, and also the identification and development of effective leaders.

Research supported by ARI has direct applications for training of recruits, improvement of training, and testing procedures to do such things as prevent friendly fire incidents, which occur too frequently.

ARI's research provides commander's guidance for deployment in this ever-changing Army mission of adding peacekeeping and stability operations such as missions to Somalia, Haiti, and Bosnia. Recent university work also helps support military families during overseas deployments.

ARI sponsors the work of many graduate students through its consortium of 12 universities in the Washington metro area and at 15 other universities around the country. APA, therefore, urges the subcommittee to direct the Department of Defense to reevaluate the proposal to eliminate ARI.

APA asks the subcommittee to request this reevaluation be provided to the subcommittee before the fiscal year 1998 budget request is submitted. We also ask the subcommittee to direct the full funding of ARI until the subcommittee has reviewed the reevaluation.

As for the Air Force, APA urges the subcommittee to support at a minimum the 2-percent increase to $235 million requested for basic research in the fiscal year 1997 DOD request for the Air Force. This money supports the Air Force Office of Scientific Research, which funds basic research both in the Air Force labs and through grants to academic institutions and other contractors.

The Air Force labs compete for these funds through submission of research proposals that are evaluated in competition with proposals from the civilian sector, ensuring that only the best research is funded and supported.

The Navy's current research investment in basic research is $377 million, and with the subcommittee's approval would increase to $387 million in fiscal year 1997. The Cognitive Neurosciences Division of the Office of Naval Research was particularly hard hit in the fiscal year 1996 decrease in the Navy's budget, and the 11-percent decrease was amplified by the fact that some of the budget was given over to the payment of bills for campaigns in Bosnia.

APA urges the subcommittee to recommend the $387 million for the Navy's fiscal year 1997 6.1 budget, and to direct the Navy to allocate $17.5 million of those dollars for the Cognitive and Neurosciences Division fiscal year 1997 budget.

As examples of some of the research—well, the time has run out.

In conclusion, it is sometimes easy to overlook the important contributions of behavioral research to the missions of the Army, Navy, and the Air Force because the results do not usually translate directly into new weapons systems or hardware.

PREPARED STATEMENT

Even though it is a small portion of the overall DOD budget, behavioral research has and will continue to provide the foundation for tremendous savings produced by increased efficiency and enhanced productivity and the many contributions of behavioral research, which are significant, will continue to identify and describe the critically needed improvements in human resources and training and human error reduction.

This concludes my testimony, Mr. Chairman.

Senator STEVENS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF GERALD KRUEGER

This testimony is submitted to the Subcommittee by the American Psychological Association (APA), a professional and scientific organization of 148,000 members and associates, many of whom conduct behavioral research relevant to the military.

THE RDT&E BUDGET

Declining DOD budgets have led to a new acquisition strategy aimed at buying fewer new and expensive systems. DOD will need to rely increasingly on upgrades, technological innovations and improvements in performance generated from its Research, Development, Testing & Evaluation (RDT&E) programs. It is crucial during these belt-tightening times to maintain the technology base upon which these upgrades and improvements will be based. Although it is not possible to maintain the growth rate in the RDT&E budget experienced during the 1980's, it is important to maintain DOD's capacity to respond to future needs.

A crucial component of national security is DOD's support for 6.1 research in the nation's universities. The partnership between universities and DOD, firmly established during World War II and expanded and nurtured after the war, has helped provide the research base so critical to the development of current systems and practices. DOD-sponsored university research also provides support for the education and training of future scientists and engineers. In particular, DOD support of graduate students has been pivotal in ensuring the steady, reliable, well-educated pool of U.S. scientists necessary to provide the military with essential scientific expertise. This support has also greatly benefitted the civilian economy by helping educate the people comprising our world-class scientific and technological infrastructure. This investment in the nation's universities has helped produce the most technologically sophisticated military in the world and is necessary to maintain the unchallenged U.S. defense capability.

DOD's support of psychological research dates from WWII when the efficient testing and classification of new recruits was critical for the rapid buildup of U.S. forces after Pearl Harbor. Today, the contribution of psychological research ranges from improvements in the selection and assignment of personnel, to the training and maintenance of skills, to the design of the human-machine interface, to the efficient and safe operation of complex systems.

Maintenance of DOD's technology base must include 6.1 (basic), 6.2 (exploratory development) and 6.3A (advanced development) research on manpower, personnel selection, training, human factors, cognitive science and other areas of behavioral research. Although less widely publicized than advances in military hardware, these contributions have been critical to sustaining our combat superiority. They have been possible only because the services have maintained closely coupled 6.1, 6.2, and 6.3A research programs on key human resources, training, and human factors issues. Now, with systems growing ever more sophisticated and demands on the human operator ever more complex, we can ill afford to cut back on the research that is necessary to preserve our "combat edge." With the support of this Subcommittee, U.S. leadership in these crucial areas of behavioral research—in the service laboratories and in the nation's universities—will be assured.

In the remainder of my testimony, I will focus on the 6.1 portion of the RDT&E budget, and those programs in the Army, Navy and Air Force which support psychological research. This research fuels equally valuable 6.2 and 6.3A programs which are managed by the service laboratories and supported through valuable in-house research.

BASIC RESEARCH (6.1)

The 6.1 budget decreased in fiscal year 1996 from the fiscal year 1995 level. While the decrease was less than that in some other portions of the RDT&E budget, it led to the curtailment of promising research programs and increased uncertainty in the commitment to long-term research projects. APA's urges the Subcommittee to support the fiscal year 1997 request for 6.1 research of $1.2 billion—a modest 2 percent increase over the fiscal year 1996 level.

The 6.1 budget funds basic research to support our national defense needs—current and future. Right now we are enjoying the fruits of research conducted in the late 1970's through the 1980's, when support for DOD research was expanding. It is not now possible to maintain this growth rate, but it is important to maintain DOD's capacity to respond to future needs. More than ever, careful and prudent planning for our future defense needs must be done. DOD supports research that other federal agencies or industry cannot fund, but that is essential to maintaining the world-class status of our military.

The Army, Navy and Air Force all have 6.1 programs that meet the particular needs of those services. The services also cooperate to eliminate unnecessary duplication of research effort and actively share research results. Valuable psychological research is supported by all three services and the remainder of my testimony will focus on these programs.

Army Research Institute for the Behavioral and Social Sciences (ARI)

APA was very disturbed to learn of the Army's plans to eliminate the Army Research Institute for the Behavioral and Social Sciences by zeroing out its budget in fiscal year 1998 and beyond. ARI is the Army's primary manpower, personnel, and training research organization. It supports research to inform the Army's policy and training is areas such as the selection and assignment of personnel; the development and maintenance of their skills—especially in the face of increasing demands posed by advanced technologies; accommodations to the increasing diversity of the military population; and the identification and development of effective leaders. APA urges the Subcommittee to direct the Department of Defense to reevaluate the proposal to eliminate ARI. APA asks the Subcommittee to request that this reevaluation be provided to the Subcommittee at the time the fiscal year 1998 budget request is submitted. We also ask the Subcommittee to direct the full funding of ARI until the Subcommittee has reviewed the reevaluation.

The research supported by ARI has direct applications not only for the training of recruits, but also for the improvement of training and testing procedures to reduce errors in the identification of enemy or friendly aircraft. Misidentification of aircraft was a major factor in at least three recent military accidents; those involving the U.S.S. *Stark*, the U.S.S. *Vincennes* and the friendly fire destruction of two Blackhawk helicopters in Iraq.

Air Force Office of Scientific Research (AFOSR)

APA urges the Subcommittee to support, at a minimum, the 2 percent increase to $235 million requested for basic research in the fiscal year 1997 DOD request for the Air Force. This money supports AFOSR, which contains five research directorates that fund basic research both in the Air Force laboratories and through grants to academic institutions and other contractors. The Air Force laboratories compete for these funds through the submission of research proposals that are evaluated in competition with proposals from the civilian sector. This ensures that the best and most relevant research is funded.

The human performance project.—The fiscal year 1997 plans for AFOSR include $9.7 million for the Human Performance Project—a level of funding recommended by the Air Force in the last three budget requests, but not yet attained. The Human Performance Project supports Air Force personnel readiness and technology development for Command and Control and Information Systems, through a broad-based research program. This research on how individuals and small teams process information to learn, solve problems, and make decisions, has several objectives. One is the development of models that can accurately predict the limits and potential of individual recruit performance. Other objectives include the development of intelligent tutoring systems to improve technical training in the Air Force; research on communication and decision-making in teams to aid the automation of command and control; and the development of models of human vision and hearing to improve the human/machine interface in the complex technology of the modern Air Force.

An example of the work being supported through the Human Performance Project is research on developing "intelligent" tutoring systems. The Air Force and other services have to intensively train thousands of men and women each year to perform vital and complex technical tasks—tasks that allow no room for error. The development of intelligent tutoring systems is allowing this training to take place in remote locations and most importantly, aids human learning by "interacting" with the trainee in ways that conventional computer aids cannot. This research is not only contributing to improvements in military training, but has the potential for applications in the civilian sector as well.

Office of Naval Research (ONR)

The Navy's current investment in basic research is $377 million, and would increase to $387 million in fiscal year 1997, with the Subcommittee's approval. This modest 3 percent increase would still be 5 percent below the fiscal year 1994 level, but would help restore needed funds to the 6.1 programs in the Office of Naval Research.

The Cognitive and Neural Sciences Division (CNS) in ONR was particularly hard hit by the fiscal year 1996 decrease in the Navy's 6.1 budget. The 11 percent decrease in the CNS budget from fiscal year 1995 to fiscal year 1996 was made worse by further cuts when the RDT&E portion of DOD's budget was used to help pay for overseas campaigns in Bosnia. APA urges the Subcommittee to recommend $17.5 million for CNS's fiscal year 1997 budget—which would not account for losses due to inflation, but would restore it to the fiscal year 1995 level.

CNS supports research to increase our understanding of complex cognitive skills in humans, aid in the development and improvement of machine vision, to improve human factors engineering in new technologies, and to advance the design of robotics systems. An example of CNS-supported research is its long-term investment in artificial intelligence research. This research has led to many useful "products" including software that enables implementation of "embedded training."

The concept of "embedded training" involves providing shipboard personnel the opportunity to develop and refine critical skills through practice on simulated exercises delivered at their actual workstations. In today's Navy, many of the operational tasks, such as recognizing and responding to threats, require complex interactions with sophisticated, computer-based systems. Once developed, embedded training software can be loaded onto the actual systems and delivered wherever and however it is desired.

Embedded training is particularly valuable for the Navy because its personnel are often required to maintain high proficiency and readiness levels during lengthy, uneventful deployments at sea—far from land-based training facilities. A good example of this technology is the ship-board Combat Information Center (CIC) where a team of experts, supported by complex technology, is charged with identifying and responding to every perceived threat. Such threats rise only rarely, but must be handled with great skill when they do. Embedded training is used to sustain both the individual and team skills needed in this critical situation.

PSYCHOPHARMACOLOGY DEMONSTRATION PROJECT

The American Psychological Association supports the continuation of the DOD Psychopharmacology Demonstration Project (PDP), which trains military psychologists to prescribe psychotropic medications.

We appreciate the support Congress gave the PDP last year during consideration of the Defense Authorization Act (Public Law 104–106). In that legislation, Congress decided to continue the PDP for two more academic years and have the General Accounting Office perform a cost-benefit analysis and recommend whether the PDP should be made permanent.

We are gratified that the conference agreement specifically allows PDP graduates to prescribe. It also allows the seven military psychologists currently enrolled in this post-doctoral fellowship to complete their training. We regret that no new classes of fellows were permitted to enroll, as this would have made more statistically valid the various evaluations of the PDP. The House's initial action of voting to immediately terminate the PDP would have prevented an objective analysis from being conducted and deprived Congress of the data necessary to decide whether permanent authorization for psychopharmacology training would be desirable for the military health system.

This post-doctoral project enables a small number of military psychologists to acquire additional skills and enhance cost-effective patient care by expanding treatment options to include psychotropic medication, when appropriate. Constant monitoring by outside experts from the American College of Neuropsychopharmacology (ACNP) has led to continued fine-tuning of the PDP as evaluators learn from each iteration of the project—this evaluation team includes both physicians and psychologists.

The PDP is a wise investment as its graduates begin to incorporate prescribing into their practices, expanding the corps of qualified health care professionals available to treat mental and behavioral health conditions in a cost effective manner wherever military personnel are stationed. We are pleased that the House Appropriations Committee last year resisted emotional pleas to curtail the project prematurely. We believe that when sufficient data has been collected by ACNP and

GAO, the project will stand on its merits and prove to be a valuable addition to military health care.

SUMMARY AND RECOMMENDATIONS

It is sometimes easy to overlook the important contributions of behavioral research to the missions of the Army, Navy and Air Force because the results do not usually translate directly into new weapons systems or hardware. Even though it's a small portion of the overall DOD budget, behavioral research has, and will continue to, provide the foundation for tremendous savings produced by increased efficiency and enhanced productivity. As the examples of research cited above demonstrate, the many contributions of behavioral research are significant and will continue to identify and describe critically needed improvements in human resources, training, and human error reduction.

It's important to recognize that increasingly sophisticated weapons systems place more, not fewer, demands on human operators. We must ensure that our military personnel are as well prepared as their machines to meet the challenge. This is not possible without a sustained investment in human-oriented research.

STATEMENT OF DR. RALPH POWE, VICE PRESIDENT FOR RESEARCH AT MISSISSIPPI STATE UNIVERSITY, REPRESENTING THE COALITION OF EPSCoR STATES

Senator STEVENS. Dr. Powe, you are appearing for the research at Mississippi State University. You have very powerful advocates here already.

Dr. POWE. I am Ralph Powe, the vice president for research at Mississippi State University and chairman of the Mississippi Research Consortium, and I do appreciate very much the opportunity to testify today on behalf of the Coalition of EPSCoR States in support of the experimental program to stimulate competitive research.

EPSCoR was initiated by the National Science Foundation in 1979. It is a program that is carried out by seven Federal agencies for the purpose of building competitive science programs in States which seek to increase their level of research and development funding. Today, there are 19 States that are eligible to participate in this program.

EPSCoR succeeds because it focuses the attention of State government officials, universities and the private sector on self-improvement in scientific research and education. Other benefits are that it leverages the Federal investment by attracting State commercial and institutional support of EPSCoR research activities, and that it promotes cooperation and effective use of resources among the research institutions within the EPSCoR States.

Congress has appropriated funding for the defense EPSCoR program in each of the past 6 fiscal years, but last year it enacted a formal charter for the Defense EPSCoR Program.

Section 257 of the Fiscal Year 1995 National Defense Authorization Act establishes a Defense EPSCoR Program under the jurisdiction of the Director of Defense, Research, and Engineering.

Last year, DOD solicited proposals from the EPSCoR committees in eligible States, and in response, 247 research proposals were submitted, and these had an aggregate potential value of $80 million.

Last week, DOD announced plans to award over $18 million of fiscal year 1996 appropriations to 58 scientists at 34 academic institutions. The average award will be $321,000, and each award requires a non-Federal match of 50 cents for each Federal dollar. We feel that each one of these programs contributes to the DOD mission and to defense readiness in this country. It has been our experience that the EPSCoR programs yield a return far beyond the original investment.

Mr. Chairman, on behalf of the Coalition of EPSCoR States, I would urge the subcommittee to continue to support the Defense EPSCoR Program, and we request that the subcommittee provide $20 million to the Department of Defense for the Defense EPSCoR Program in fiscal year 1997 as a part of the university research initiative. We feel that this will be a worthwhile investment of scarce defense funds that will contribute significantly to efforts to build the scientific and engineering research efforts of States deemed eligible to participate in the EPSCoR Program.

Senator STEVENS. Doctor, let me tell you, I will do that.

Dr. POWE. Thank you.

PREPARED STATEMENT

Senator STEVENS. Do you want to put the rest of your statement in the record?

Dr. POWE. Absolutely. Thank you very much.

Senator STEVENS. We will do just what you ask. Thank you. I appreciate your courtesy, Doctor.

[The statement follows:]

PREPARED STATEMENT OF DR. RALPH E. POWE

Mr. Chairman: I am Ralph Powe, Vice President for Research at Mississippi State University and Chairman of the Mississippi Research Consortium. I appreciate this opportunity to testify on behalf of the Coalition of EPSCoR States in support of the Experimental Program to Stimulate Competitive Research (EPSCoR).

The EPSCoR was initiated by the National Science Foundation in 1979. It is a program carried out by seven federal agencies for the purpose of building competitive science programs in states which seek to increase their level of research and development funding. Today there are nineteen states that are eligible to participate in the EPSCoR[1] program.

In Mississippi our four research universities (Jackson State University, Mississippi State University, the University of Southern Mississippi, the University of Mississippi including the University of Mississippi Medical Center), form the Mississippi Research Consortium. It is this collaboration that largely influences Mississippi's participation in the EPSCoR program. In addition, through a variety of outreach programs, students and faculty at other Mississippi colleges have access to specialized research and educational opportunities fostered by EPSCoR.

EPSCOR IN MISSISSIPPI

The State of Mississippi has established the Mississippi Research Consortium as the Science and Technology Research Advisor to the Governor and the Legislature. The mission of the Mississippi Research Consortium is to build quality science, engineering, and education infrastructure and environment in the State. We are doing this by recruiting, training, and retraining the best scientists and engineers and providing them with viable research facilities that will help them achieve the highest levels of excellence in their work. With these resources they will be able to compete in national and international areas, and thereby contribute to the State's overall economic well-being.

Mississippi Research Consortium oversees the State's EPSCoR program. The Mississippi EPSCoR program has been a stimulus for scientific research and education in our State. EPSCoR, as initiated by the National Science Foundation, has helped Mississippi to: form a critical mass of scientists to ensure competitive research within our universities; provide the Mississippi Research Consortium with the tools to lead our State's research infrastructure initiatives; strengthen research and institutional interactions within the State as well as enhanced activities with federal agencies; and expand the consortium to link with other State institutions to provide opportunities in encouraging the development of human resources.

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[1] Alabama, Arkansas, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, North Dakota, Oklahoma, Puerto Rico, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming

The Mississippi EPSCoR program preserves the integrity of the scientific research process by using competitive merit review. EPSCoR succeeds because it focuses the attention of state government officials, universities, and the private sector on self-improvement in scientific research and education. Other benefits are that it leverages the federal investment by attracting state, commercial, and institutional support of EPSCoR research activities and that it promotes cooperation and effective use of resources among the research institutions within the EPSCoR states.

Mr. Chairman, let me stress this last point because it so illustrates one of the essential elements of this program. EPSCoR requires the institutions of a state to work together in an unprecedented way to improve the state's science and engineering research capacity. Our universities are finding that, in contrast to their previously competitive relationships, this cooperation makes them much more effective in achieving their research goals. This pattern is repeated in all the EPSCoR states.

DEFENSE EPSCOR AUTHORIZATION

Congress has appropriated funding for the Defense EPSCoR program in each of the past six fiscal years, but last year it enacted a formal charter for the Defense EPSCoR program. Section 257 of the Fiscal Year 1995 National Defense Authorization Act (Public Law 103–337) establishes a Defense EPSCoR program under the jurisdiction of the director of Defense Research and Engineering. The stated objectives of this program are:

(1) to enhance the capabilities of institutions of higher education in eligible States to develop, plan, and execute science and engineering research that is competitive under the peer-review systems used for awarding Federal research assistance; and

(2) to increase the probability of long-term growth in the competitively awarded financial assistance that institutions of higher education in eligible States receive from the Federal Government for science and engineering research.

To achieve these objectives, the Defense Department is authorized to competitively award research grants and financial assistance for graduate students. The Director of Defense Research and Engineering is to consult with the Director of the National Science Foundation to determine eligibility for the DEPSCoR program and to use the existing state EPSCoR committees to conduct a merit-based competition for grants in areas of science, mathematics, and engineering important to the Department's mission.

DEFENSE EPSCOR IN 1995–96

Last year DOD's Office of Defense Research in conjunction with the Air Force Office of Scientific Research, the Army Research Office, the Ballistic Missile Defense Organization, the Defense Advanced Research Projects Agency, and the Office of Naval Research solicited proposals from the EPSCoR committees in eligible states. In response, 247 research proposals were submitted that had an aggregate potential value of $80 million. Last week, DOD announced plans to award $18,630,000 appropriated for fiscal year 1996 to 58 scientists at 34 academic institutions. The average award will be $321,000. Each award requires a non-federal match of 50 cents for each federal dollar.

CONTRIBUTIONS OF MISSISSIPPI'S EPSCOR PROGRAM TO DEFENSE READINESS

I would like to cite several examples of the research we have conducted in Mississippi as part of the Defense EPSCoR program:

—A Navy-supported research project at Mississippi State developed a method for computing the nonlinear dynamics of the flow in the vicinity of a ship. This research contributes to the development of the capability to investigate free-surface vorticity and free-surface turbulence, as well as the capability to handle the body/free-surface problem with the ship in heaving, rolling and/or pitching motion.

—A University of Southern Mississippi researcher, who is supported by the Air Force Office of Scientific Research, is working on new methods of preparing composite materials and interpenetrating networks in order to produce composite structures without the expensive process of autoclaving. The benefit will be stronger composite products at less cost, an important consideration for aviation in the twenty-first century.

—Pilots are subject to spatial disorientation during flight. Erroneous perceptions about head motion in space are the most significant factors contributing to pilot disorientation. These perceptions arise from the neural processing information, probably at different sites within the brain. A project at the University of Mississippi Medical Center, which is supported by the Office of Naval Research, seeks a greater understanding of neural signal processing at these sites. This information is critical to understanding pilot disorientation and to designing improved cockpit or simulator environments to minimize the occurrence of pilot disorientation.

—As a final example, I would cite a problem faced by current military helicopters which involves parts of the main rotor blade that become ineffective during high speed evasive maneuvers during combat. This effect is brought about by "dynamic stall" which could lead to premature mechanical failure with disastrous consequences. Dynamic stall is initiated by an inability of the airflow to follow the blade during these maneuvers. It may be prevented if detected through the identification of suitable precursors using a pressure fluctuation transducer array developed by a University of Mississippi researcher. Through EPSCoR, the Army Research Office is supporting the development of an oscillating airfoil which is being used to model the rotor blade in a wind tunnel.

PARTNERSHIPS

The planning for this and the other federal EPSCoR programs in Mississippi involved faculty and administrators from across the state in a remarkable cooperative and collaborative effort. Indeed, one of the most significant successes of the EPSCoR program has been the partnerships it has engendered. These partnerships extend beyond the universities to include the state government and industry as we develop the program goals, research projects, and program funding. Because cost-matching is required in EPSCoR research projects, the program has explicit buy-in and visibility with the Mississippi Legislature.

The partnership concept extends also to our interactions with the federal agencies. Joint development of the Defense EPSCoR and other EPSCoR program goals and objectives will ensure that the program achieves its mission of stimulating competitive research. Indeed, given the buy-in and participation by so many constituencies, EPSCoR is a good example and model for federal-state partnerships in science and technology.

THE FUTURE

Given the success of the EPSCoR programs in Mississippi, it is not surprising that we are very interested and enthusiastic about the future of the Defense EPSCoR program. It has been our experience that the EPSCoR programs yield a return far beyond the original investment. They allow the states to accomplish more than is possible through the regular research programs. At their core they support quality peer-reviewed research, but also build the research infrastructure that improves our overall competitiveness. They stimulate collaboration, strategic thinking and broad-scale planning, and development of a shared research vision by the state. Mississippi is making good use of EPSCoR in concert with and complementary to the other agency research initiatives.

Mr. Chairman, on behalf of the Coalition of EPSCoR States, I urge this Subcommittee to continue to support the Defense EPSCoR program. We request that the Subcommittee provide $20 million to the Department of Defense for the Defense EPSCoR program in fiscal year 1997 as part of the University Research Initiative. This will be a worthwhile investment of scarce defense funds that will contribute significantly to efforts to build the scientific and engineering research efforts of states deemed eligible to participate in the EPSCoR program.

Thank you for your consideration of this request.

STATEMENT OF DR. ROY B. SESSIONS, PROFESSOR AND CHAIR, GEORGETOWN UNIVERSITY MEDICAL CENTER, REPRESENTING THE AMERICAN ACADEMY OF OTOLARYNGOLOGY-HEAD AND NECK SURGERY, INC.

Senator STEVENS. Dr. Sessions, Georgetown University Medical Center.

Dr. SESSIONS. Thank you, Mr. Chairman. I am Dr. Roy Sessions. I am professor and chairman of the department of otolaryngology and head and neck surgery at Georgetown Medical Center here in Washington.

My role today, however, is to present testimony on behalf of the American Academy of Otolaryngology-Head and Neck Surgery, which is really the parent medical society that represents over 10,000 positions in the specialty you might know better as ear, nose, and throat.

As doctors that deal with disorders that affect the head and neck and the respiratory system, we care for the many patients that are afflicted with tobacco and environmentally related cancers.

Mr. Chairman, we realize that this subcommittee deals primarily with military issues, and that most of the people that are witnesses appearing before you speak about important questions relating to the size and strength of the Armed Forces. My testimony today, however, relates to the medical and environmental considerations that pertain to the military specifically and to the public in general, and we do appreciate the opportunity you have given us in allowing us to testify.

There are a number of issues that I will list, but I want to focus primarily on the implications of the tobacco use in the military. I would also touch upon, and we have great concerns about, those matters that pertain to ultraviolet light exposure in the military, to stratospheric ozone layer protection issues, to air pollution in general as it pertains to the military, and to noise reduction.

But regarding tobacco, which is the main thrust about which I speak, over the last several years our academy has testified before you on tobacco use cessation in the military, and I want to point out to you today that even though smoking is down substantially in the military at this point, and it has decreased significantly since the DOD, the Department of Defense efforts began in 1986 to suppress it, smoking among military personnel still averages about 10 percent or so higher than in the general civilian population.

Over 2 years ago, the DOD announced a policy that banned smoking in all DOD facilities worldwide, and this far-reaching initiative really makes those workplaces a healthier place in which to work for our military personnel.

Have no doubts about it, the evidence that incriminates tobacco and smoke, whether it is primary or secondary, as a causation in cancer and cardiopulmonary disease is overwhelming, and while the efforts that are made by the DOD are laudable, we urge more.

For instance, tobacco use continues to be indirectly encouraged by the military, who subsidize sales of tobacco products in the military commissaries and the PX's, where these products can be bought at much lower prices than they would be on the outside.

The academy realizes, of course, that it is unlikely that the DOD will ban the sale of tobacco products throughout the commissary system, but we strongly urge the military to at least bring prices into line with the outside world, and thus we believe it would cut down somewhat on usage.

Our academy restates its request that we previously made to the DOD that throughout the medical facilities and elsewhere, tobacco cessation programs be encouraged in order to educate the personnel on board and also their families, especially mothers and children, about the hazards of secondary and primary smoke, and especially about smokeless tobacco.

For your information, Mr. Chairman, the tobacco industry has portrayed smokeless tobacco as a safe alternative to smoking. Military personnel are particularly susceptible to this pitch because it is really an inconspicuous way to use tobacco to those people that are addicted to tobacco, without bringing attention to oneself.

Make no mistake about it, though, smokeless tobacco is very addictive, and it is far from being harmless. We have been the leaders in labeling these products really for what they are, health hazards, and we have given much testimony on the Hill on these issues, and we urge the Department of Defense to recognize this, as they have so wisely done in the smoking matter.

PREPARED STATEMENT

So Mr. Chairman, I want to again thank you on behalf of the Academy of Otolaryngology-Head and Neck Surgery. We hope that the funding for tobacco-related issues especially not be diminished, and we hope increased, because this is a battle that must be fought throughout society, and the military really, I think, representing the prime of our youth, really is a good place in which to do that battle.

Thank you, sir.

[The statement follows:]

Prepared Statement of Dr. Roy B. Sessions

Mr. Chairman, I am Roy B. Sessions, M.D., professor and chair of the Department of Otolaryngology-Head and Neck Surgery at Georgetown University Medical Center, Washington, DC. I am pleased to present the testimony to you on behalf of the American Academy of Otolaryngology-Head and Neck Surgery (AAO–HNS). We urge your support for increased funding for tobacco cessation programs within the armed forces and efforts to protect our environment. The AAO–HNS is the largest medical society of physicians, with over 10,000 members, dedicated to the care and treatment of patients with disorders of the ears, nose, throat and related structures of the head and neck. We are sometimes referred to as ENT physicians.

Over the last several years our Academy has testified before you regarding issues of tobacco use cessation in the military, and environmental issues related to military operations, and we wish to continue to urge further action on these issues. If, after hearing our views, you would like your staff to discuss these issues with us, perhaps with the view of developing bill report language, we would be pleased to work with them.

Tobacco use cessation.—The American Academy of Otolaryngology-Head and Neck Surgery for decades has been opposed to the use and increasing spread of tobacco use in this country. As physicians who care for most of the patients in the United States with cancer of the head and neck, we see the harmful affect of tobacco use among our patients every day. Scientific reports continue to document the adverse impacts of tobacco on users and on persons who happen to be in the vicinity of the toxic smoke from tobacco products used by others.

Over two years ago the Department of Defense announced a policy banning smoking in all DOD work facilities worldwide. As we commented last year, this far-reaching initiative makes DOD workplaces free of harmful secondhand smoke and improves the overall health of all military personnel.

We realize that smoking in the armed services has significantly decreased since the DOD 1986 effort to curb smoking by military personnel. As we indicated last year, however, smoking by military personnel still averages about 5–10 percent higher than the civilian population.

Unfortunately, many in the military have substituted tobacco smoking with smokeless tobacco to avoid disciplinary action where smoking itself is prohibited.

Tobacco use continues to be indirectly encouraged by the military through subsidized sales of tobacco products at military commissaries and PX's where cigarettes and other tobacco products can be bought at much lower prices than would otherwise would be charged. As we have indicated for the last several years, while the Academy realizes it is unlikely that the DOD will ban sale of tobacco products throughout the commissary system, we strongly urge the military to at least bring tobacco prices to a parity with civilian prices, to help cut down on use.

Our Academy, in January 1994, launched a major public education and media campaign about the serious health hazards of secondhand smoke; we continue our vigorous activity in that regard. I would be pleased to provide this committee with educational information on this issue.

The AAO–HNS restates its request that the Department of Defense, through its medical facilities and elsewhere, provide and promote tobacco cessation programs and educate its personnel and their families, especially mothers and children, about the hazardous effects of secondhand smoke and smokeless tobacco. A tobacco-free environment will provide for healthy military personnel and their families.

UV Index and the military.—Last year, the AAO–HNS indicated its strong support of the activities of the Environmental Protection Agency (EPA), the National Weather Service (NWS) and the Centers for Disease Control and Prevention (CDC) in developing a nationwide UV Index to alert members of the public to the dangers of excessive UV radiation from the sun, potentially resulting in skin cancers, eye damage and immune system damage.

This program was announced two years ago and the Academy has been strongly supportive of it. Practicing physicians who treat cancers of the head and neck frequently are involved in skin cancer surgery.

We know that the potentially fatal form of skin cancer, melanomas, is increasing rapidly in our nation.

Research has shown that melanomas are, in some cases, likely linked to excessive sunburn received in during youth. Additionally, other forms of skin cancer, including basal cell carcinomas and squamous cell carcinomas, are increasing rapidly and there is little doubt now that excessive exposure to sunlight is a major factor in these increases.

As you know, many in the military are exposed to the sun on a daily basis because of the necessity of their work outdoors.

Particularly at risk are those in naval operations, including Navy and Coast Guard personnel, as much sunlight can be reflected from water impacting on the skin. Also, because most members of the armed forces are relatively young, they engage in many outdoor sports and thus are at additional increased risk of excessive sun exposure.

We know the impacts, we understand the dangers, and therefore we strongly support the UV Index program.

We suggest that this committee consider bill report language directing the Assistant Secretary for Health of the Department of Defense to develop, with the EPA and CDC, a program within the military of UV impact education. Many medical personnel serving in the military are already aware of this problem but to our knowledge a national program has not yet been instituted regarding it. Therefore we urge most strongly that this be considered and suggest that this Academy is willing to work with the Assistant Secretary for Health of the Department of Defense to push such a program forward.

Stratospheric ozone layer protection.—We are pleased to hear that many elements of the armed forces are actively engaged in reducing the use of CFC's and other stratospheric ozone depletion chemicals. This is a vital activity, in our view. DOD organizational awards were made by the EPA Stratospheric Protection Division on October 24, 1995 to the Aberdeen Test Center, U.S. Army; Advanced Cruise Missile DSO, U.S. Air Force; AGM–130 Systems Program Office, U.S. Air Force; Annapolis Detachment, Carderock Division, Naval Surface Warfare Center, U.S. Navy; Navy Technology Center for Safety & Survivability, U.S. Naval Research Laboratory; and Titan IV Program ODS Reduction Team. Individuals from the following agencies also received awards: U.S. Naval Sea Systems Command and U.S. Defense Logistics Agency.

Air pollution and the military.—We are aware that the Department of Defense has initiated pollution prevention efforts and other environmental programs within the military over the last several years. We applaud this action. The military uses enormous quantities of fuel in its activities, thereby contributing significantly to air pollution. We urge that the Department of Defense continue its pollution prevention programs especially regarding air pollution.

In 1992 our Academy held, in cooperation with the National Institute on Deafness and Other Communications Disorders (NIDCD) a national conference on "The Impact of Pollution on the Upper Alimentary and Respiratory Tracts." Additionally, our Academy co-sponsored a conference in November, 1994 on the impact of air pollution on all body organs and systems.

We know that indoor and outdoor air pollution can cause damage not only to the lungs but can also affect other body organs and systems including, among others, the nose, throat, sinuses, trachea, other respiratory systems, and can cause ear infections and potential hearing problems because of affect on ear mechanisms—our members are the specialists concerned with these human organs and systems.

The "Greening" of Department of Defense medical facilities.—Finally, Mr. Chairman, we are aware that the Department of Defense is attempting to "green" military medical facilities, that is, making them, where possible, more environmentally sound. These activities range from the reduction in proper disposal of medical waste through to improved packaging of products and to education of personnel to deal on issues of recycling, energy reduction, noise reduction, etc. We support these activities.

Noise reduction.—In regard to noise reduction, Mr. Chairman, we have for many, many years been advocates of noise reduction in all aspects of our lives because so many cases of deafness in humans are caused by excessive and sharp noise exposure. Noise is a necessary part of daily military life, of course, and particularly so in wartime. One of our recent past presidents of the Academy served as a medical officer in the Gulf War and was on duty when the Scud missiles hit one of our bases causing severe ear injury to military personnel.

However, aside from battlefield conditions, we believe that many of the noise affects on military personnel can be reduced, if not eliminated, by appropriate use of noise-reducing prevention activities, including reduction of source noise as well as utilization by personnel of sound-dampening equipment such as ear protection devices, especially during artillery and small-arms practice firings.

Conclusion.—Mr. Chairman, we have raised six issues with you. We realize that this subcommittee deals with military issues and that most of the witnesses appearing before you deal with questions of the size and strength of our military forces. Nevertheless, we believe that medical and environmental considerations are also very important and are pleased to bring these to your attention. As I indicated earlier, our Academy would be happy to work with you or your staff to develop appropriate bill report language on these matters.

Thank you, Mr. Chairman.

Senator STEVENS. Well, Doctor, we have over $250 million in the bill for research for the Department of Defense that is not earmarked. The earmarks are on breast cancer, prostate cancer, and AIDS, and they normally take place on the floor. We recognize it is going to happen this year. I agree with you. I am the author of the bill that requires in Federal installations that there be places designated for smoking, and except for that they would be smokefree, and I do think that you make a point.

I do remember as a World War II airman that we did receive cigarettes and tobacco free. We do not do that any more, and even on post they are not sold below cost. There is no subsidy any more on tobacco products in the Department of Defense. That is a controversial thing in some places, but it is so.

I think you must make your case to the Department, because we do not earmark except for those very high, special issues that are so prevalent now in the community in breast cancer, prostate cancer, and AIDS, those three.

Thank you for coming.

Dr. SESSIONS. Thank you, sir.

STATEMENT OF DEBBIE BIAL, DIRECTOR, THE POSSE FOUNDATION

Senator STEVENS. Now we are turning to Debbie Bial, director of the Posse Foundation.

Ms. BIAL. Mr. Chairman, distinguished members of the committee, my name is Deborah Bial, and I am the executive director of the Posse Foundation, and I thank you for the opportunity to provide testimony regarding the role of the Department of Defense in supporting education and training of American students in science, engineering, and math.

Your support for the Posse Foundation is greatly appreciated on behalf of Michael Ainslie, who is the chairman of our board, and by university presidents from across the country, and I want to thank you again for your support.

The College Posse Program is a unique program which enables young people from diverse backgrounds to attend highly regarded colleges and universities such as Vanderbilt, Rice, and Lehigh as part of a team, or a posse.

This team then acts as a contemporary multicultural support system and an active agent of change for a university campus. The teams are selected through an innovative recruitment process and students are trained for 10 months to improve their skills in academics, leadership, and cross-cultural communication.

The success of our programs in building bridges across communities has been unsurpassed nationally. In the past 6 years, the posse program has awarded 85 specially selected students full 4-year scholarships to top universities. The students represent, I guess over $4 million in scholarship awards.

Among the different placements of posses, we have placed four teams of students into engineering programs in the last 2 years, and these students are majoring in chemical, computer, biomechanical, and other engineering fields.

The Posse Foundation is excited about replicating its programs nationwide, including beginning outreach in Alaska.

In 1994, 100 percent of the first posse class graduated on time and with honors. Overall, the college graduation rate for the students participating in the posse program is over 90 percent, higher than most university averages, and the initiative has received outstanding commendation as a national model.

Currently, foreign students continue to dominate receipt of Ph.D's in science, engineering, and math fields from American institutions of higher learning. For example, in 1993, non-U.S. citizens received 611 Ph.D's in mathematics and 3,429 doctorate degrees in engineering. At the same time, U.S. citizens received only 496 Ph.D's in mathematics, and 2,225 doctorates in engineering.

While the contribution all of these students are making to our national endeavors in the global marketplace is clear, it is also clear that an increasing number of American universities recognize the need to develop initiatives that will more effectively draw American citizens into these graduate fields of study.

The Posse Foundation is trying to get more American students into our institutions of higher education, into our Ph.D programs, into the SEM fields. We believe that more and new initiatives need to be encouraged and developed.

The underparticipation of American citizens in the SEM fields raises a number of policy issues particularly, as these are issues that relate to the national security and Department of Defense activities, where often American citizenship is required. Moreover, the underrepresentation of Hispanics, African-Americans, and American Indians provides complex challenges in that people from these populations will be called upon to provide the labor needed for the next century.

We must do more to enhance participation of all Americans in the SEM field. As we do this, we must look to research-intensive institutions as a source of training for American citizens. With this as background, it is clear that more can and should be done to take advantage of the wealth of DOD resources that has been provided to research-intensive and other institutions of higher education so we can better support the training of American citizens.

Mr. Chairman, as we struggle with fiscal issues at the Federal level, every effort must be undertaken to ensure that we make optimum use of scarce resources. In order to assist the institutions that are receiving the lion's share of Federal research and development dollars, the Posse Foundation, in cooperation with metaNetworks, the college board, and its university partners, request that language be included in the fiscal year 1997 Department of Defense appropriations report to support recruitment and retention efforts at these institutions that target American citizens.

Additionally, recruitment and retention efforts that are not race-based, but which permit youth from culturally and economically diverse backgrounds to matriculate and receive SEM training as teams should be particularly encouraged.

It is in this vein, Mr. Chairman, that we ask the committee to provide $2 million to support recruitment and retention efforts at research-intensive institutions of higher education that seek to train organized teams of American youth from culturally, racially, and economically diverse backgrounds for college admission and advanced training in the SEM fields.

PREPARED STATEMENT

This concludes my testimony. Thank you again, Mr. Chairman, for allowing the Posse Foundation the opportunity to appear before you today.

Senator STEVENS. I will tell you when we get to conference if we can find some way to earmark some money to use in your endeavor, using your system as a model, we will do it, provided it is tied to ROTC, refund people to continue in the military effort. So if you can tie it to ROTC, we will see if we can tie some of it into you.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF DEBORAH BIAL

Mr. Chairman, distinguished members of the Committee, I am Deborah Bial, Executive Director of the Posse Foundation. I thank you for the opportunity to provide testimony regarding the role of the Department of Defense in supporting the education and training of American students in science, engineering and mathematics (SEM) fields. Your support of the Posse Foundation, including your meetings with Michael Ainslie and the planning of a breakfast with university presidents, is greatly appreciated.

The College posse program is a unique program which enables young people from diverse backgrounds to attend highly regarded colleges and universities such as Vanderbilt, Rice and Lehigh as part of a team, or a 'Posse'. This team then acts as a contemporary multi-cultural support system and an active agent of change for a university campus. The teams are selected through an innovative recruitment process and trained for ten months to improve their skills in academic, leadership and cross-cultural communication areas. With the assistance of major corporations like AT&T; institutions of higher learning; the College Board; and public school systems in New York, Newark, New Jersey, Nashville, Tennessee, and the District of Columbia, we are teaching young people to become powerful leaders and to promote positive cross-cultural communication in their communities. The success of our programs in building bridges across youth communities has been unsurpassed nationally.

In the past six years, the posse program has awarded 85 specially selected students full, four-year scholarships to top universities. These students represent over $4 million in scholarship awards. Posse scholars are not just excellent students, but outstanding leaders. This year Kito Huggins was the Student Government Association President. Jackie Lopardo was the Homecoming Queen. These two students, both African American, represent the power of Posse students and the changes occurring at Vanderbilt University. We have placed four teams of students into engineering programs in the past two years. These students are majoring in chemical, computer, biomechanical, and other engineering fields. The Posse Foundation is excited about replicating its programs nation wide—including beginning outreach in Alaska.

In 1994, one hundred percent of the first Posse class graduated on time and with honors. Overall, the college graduation rate for the students participating in the posse program is over 90 percent—higher than most university averages—and the initiative has received outstanding commendation as a national model.

Currently, foreign students continue to dominate receipt of PH.D's in the science, engineering and mathematics fields (SEM) from American institutions of higher learning. For example, in 1993, non-U.S. citizens received 611 Ph.D's in mathematics and 3,429 Doctorate degrees in engineering from U.S. institutions of higher education. At the same time, U.S. citizens received only 496 Ph.D's in mathematics and 2,225 Doctorates in engineering from our nation's institutions of higher learning. While the contribution these students are making to our national endeavors and the global marketplace is clear, it is also clear that an increasing number of American institutions are working to develop initiatives that will more effectively draw American citizens into these graduate fields of study.

The underparticipation of American citizens in the SEM fields raises a number of policy issues, particularly as these issues relate to national security and Department of Defense activities, where oftentimes American citizenship is required. Moreover, the underrepresentation of Hispanics, African Americans and American Indians presents complex challenges in that persons from these populations will be called upon to provide the labor needed for the next century. Yet, as national data continue to show, in terms of poverty, educational attainment and employment, the vast majority of persons from these communities are ill-prepared to meet the challenges that are upon us as well as the ones that lie ahead.

It is clear that we must do more to enhance the participation of all Americans in the SEM fields. Moreover, as we attempt to enhance the participation of Americans in these fields, we must look to research-intensive institutions as a source of training and research for American citizens. With this as background, it is clear that more can and should be done to take advantage of the wealth of DOD resources that have been provided to research-intensive and other institutions of higher education so that we can better support the enhanced training of American citizens, particularly those from underrepresented backgrounds. More significantly, steps need to be taken to build bridges across culturally and economically diverse communities without race and gender-specific policies.

Mr. Chairman, as we struggle with fiscal issues at the Federal level, every effort must be undertaken to ensure that we make optimum use of scarce resources. Consequently, in order to assist those institutions that are receiving the lion's share of Federal research and development dollars, the Posse Foundation, in cooperation with metaNetworks, the College Board, and its university partners requests that language be included in the fiscal year 1997 Department of Defense Appropriations report to support recruitment and retention efforts at research-intensive institutions of higher education which target American citizens, particularly those who are economically disadvantaged or come from populations currently underrepresented in the SEM fields. Additionally recruitment and retention efforts that are not race-based, but which permit youth from culturally and economically diverse backgrounds to matriculate and receive SEM training as teams learning to live and work together, should be particularly encouraged. The posse program differs from Affirmative Action programs in that it selects teams of students not based on race but on talent, leadership and the ability to promote positive cross cultural communication.

It is in this vein, Mr. Chairman, that we ask the Committee to provide $2 million to support recruitment and retention efforts at research-intensive institutions of higher education that seek to train organized teams of American youth, from culturally, racially and economically diverse backgrounds for college admission and advanced study and training in the SEM fields.

The 'posse' model, clearly, is a worthy alternative to some of the antiquated notions associated with affirmative action, and classifications based purely on physical characteristics. Firstly, the model will provide research-intensive and other American institutions of higher education a steady stream of highly trained American students. Additionally, the model effectively addresses many of the issues which divide many American communities without promoting the issues of one distinct group to the detriment of another. More significantly, it targets young people, and gives them the tools needed to be productive workers and to heal a country divided by race, class, and ethnic lines. It is a model for educational and economic empowerment which takes the nation many steps closer to the fulfillment of the promise of equal access and opportunity for all Americans. It is visionary and effective.

This concludes my testimony. Thank you again, Mr. Chairman, for allowing the Posse Foundation the opportunity to appear before you today. I will be happy to answer any questions you might have at this time.

STATEMENT OF DAVID JOHNSON, Ph.D, EXECUTIVE DIRECTOR, FEDERATION OF BEHAVIORAL, PSYCHOLOGICAL, AND COGNITIVE SCIENCES

Senator STEVENS. Now we turn to Dr. David Johnson, Federation of Behavioral, Psychological, and Cognitive Sciences.

Dr. JOHNSON. Mr. Chairman, I am here today to discuss the future of basic behavioral research in the Army. I mentioned to this subcommittee in other years that 60 percent of the Army's budget is spent on personnel, making it the most personnel-intensive of all the military services, but the Army's basic behavioral research budget, which is directed at improving the selection, training, and performance of personnel, is the smallest of any service branch, and it has been shrinking for over 5 years.

Recently, the Army Research Institute underwent review as part of a long-range planning exercise. Among the options developed for that review is the elimination of the Army Research Institute for Basic Behavioral Research. Future behavioral research would be contracted for on an as-needed basis.

While this option does not affect the current budget request, it almost surely will affect budget requests beyond fiscal year 1997, since the Army has already sent its fiscal year 1998 budget projections to the Pentagon, and the projection does not include funding for ARI, so I want to make the subcommittee aware of three objections the research community has to eliminating the Army Research Institute.

First, research is about the future. It cannot be contracted for as needed. Research has to be done in advance of need because it takes time. For example, ARI began funding research on downsizing at the height of the military buildup during the Reagan years. The research was completed 10 years later, just as the need for it became clear.

Our second objection is that eliminating ARI will also eliminate the coordination of 6.1, 6.2, and 6.3 research. Basic research should feed into early and advanced development research. It does so now because ARI makes it happen.

Finally, we object to eliminating ARI because we know from experience with industry that when in-house research and coordination is not maintained, the very specialized sciences needed to meet mission requirements begin to deteriorate. Then it is no longer possible to produce research that precisely fits the problem to be addressed. The entity requiring the research must settle for generic research that falls considerably short of meeting its exact needs.

The Army must not let that happen to science it relies on to meet its own specialized needs. For example, the Army is now the sole funder in the Government of research on leadership and leadership improvement.

So we hope that the subcommittee might consider report language asking the Army to report to Congress on the mission and work of ARI before it makes any final decision about eliminating ARI, and as I said, the elimination of the institute does not appear in the fiscal year 1997 budget request. Instead, the Army is again the only service branch asking for a cut in its behavioral research program.

For cognitive and neural research, the line item containing most basic behavioral research, the Navy is seeking $17.5 million, up from $17.3 million in 1996. The Air Force requests $11.3 million, compared to the $10.8 million it received in 1996. The Army requests $5.7 million. It received $6 million in 1996 and 1995.

We ask the subcommittee to support the very small increases called for by the Navy and Air Force, and ask that the Army's appropriation for basic cognitive and neural science be increased to at least $6 million.

Thank you for the opportunity to present our views.

PREPARED STATEMENT

Senator STEVENS. Thank you. It is my understanding the committee will support the 1997 request. I think it will be a policy issue in 1998, though. Thank you very much for your testimony.

[The statement follows:]

PREPARED STATEMENT OF DAVID JOHNSON

Chairman Stevens, Senator Inouye, and members of the Subcommittee, my name is David Johnson. I am Executive Director of the Federation of Behavioral, Psychological, and Cognitive Sciences, a coalition of 17 scientific societies and some 150 university graduate departments. Approximately 25,000 scientists are represented in the Federation. Included among this number are scientists whose research is aimed at answering problems that have bearing on the efficient and effective functioning of our armed forces.

BASIC BEHAVIORAL RESEARCH AT THE ARMY, NAVY AND AIR FORCE

Much of the behavioral research supported by the Army, Navy and Air Force is aimed at assuring the best use of human resources. That research includes finding ways to improve the precision with which particular personnel are selected for particular jobs. You can get a sense of how important such research is by understanding that 60 percent of the Army's expenditures go to personnel and personnel-related costs. People are the armed forces' greatest asset. It makes simple good sense to work continuously to find ways to use that asset at least as effectively as any hardware asset is used. In fact, unless the people who operate the hardware work well, it may make little difference that the hardware is very sophisticated.

Behavioral research is also aimed at finding ways to improve complex technical training of personnel and to do it ever faster and less expensively. This research is also directed at understanding important military structural problems such as how to maintain control of forces in the field in the midst of a chaotic battle situation. To provide answers to such a problem, it is necessary to study decision making under extreme stress, communication in uncertain situations, information transfer within groups and organizations, and information utilization in decision making, among other things.

Because national defense is a hardware-intensive undertaking, a good deal of behavioral research is also directed at seeing how best to make people and machines work together. That research includes not only improving the interfaces between people and machines, but also finding ways to make machines take over some activities completely so that human resources can remain free for work that only people can do. So one branch of behavioral research has to do with developing the basic knowledge, the electronic circuitry, the hardware and the software to make machines that can imitate or even out-perform humans in appropriate, selected task areas. This is just a brief sketch of what I am talking about when I refer to military-related behavioral research.

CHANGING MODES OF SUPPORT FOR DEFENSE BASIC AND APPLIED RESEARCH

I hope you can see that even the 6.1 or basic research in this area is very closely fitted to the particular needs of each service branch. There was a time when the service branches sponsored some areas of similar research. With shrinking budgets, that is rarely the case anymore unless one service branch is specifically designated as the lead agency in support of a particular kind of research. For example, the Air Force is designated the lead agency in psychometric research while the Navy leads on research in decision-making in hierarchical teams and distributed expertise. Other than such specifically agreed on areas, the Army, the Navy and the Air Force each funds work that is suited to its particular problems and particular needs. An example of work that turned out to have general application was research supported by the Army having to do with maintaining strength while reducing the size of military units. This research was useful in the downsizing that the whole defense operation has undergone since the end of the Cold War.

But the Navy is now preparing to conduct research to find out how small a crew can be, aided by innovations in automation, and still manage to perform all necessary functions on a battleship. That is not information that is likely to help Army troops or Air Force Pilots. It is an example of research undertaken by one branch of the armed services to satisfy its own specialized needs.

PROPOSED ELIMINATION OF ARMY RESEARCH INSTITUTE

My reason for bringing this close mating of behavioral research to particular service needs to your attention is that as pressure mounts to further reduce military spending, more and more serious consideration is being given among military planners to ending support for much of behavioral research, especially in the Army, and purchasing such research from vendors when a need is perceived. This thinking does not show up in the funding request for fiscal 1997. Rather it is a plan for 1998 and succeeding years. At this point, funds for the Army Research Institute for the Basic Behavioral Sciences has been zeroed out in planning the fiscal 1998 defense budget. ARI is the sole support for several of the areas of research I have mentioned including research on leadership. So in bringing this thinking to your attention, I want to alert you to a possible development that may be reflected in future budgets and to ask you to monitor this planning closely. I would also hope that report language on this year's appropriation might include some acknowledgment of the continued importance of the behavioral research programs of the Army especially but also of the Navy and Air Force. Our scientists consider the elimination of ARI a grave threat to several areas of science that are supported almost exclusively through ARI.

We would hope this Subcommittee could ask the Army to report to Congress on the contributions of ARI to the Army mission before the Army takes any action that would result in ARI's elimination.

The reasons for our scientists' opposition to the cut now being planned are at least three: First, we do not believe that generic research purchased from a vendor as a need is perceived is going to be able to maintain the close relationship that now exists between 6.1 or fundamental research and 6.2 and 6.3 research. This work now forms a continuum from development of basic knowledge to application. That link will be broken, and the quality of research will suffer if the current program of behavioral research support is abandoned.

A second concern is that the real worth of an ongoing research program is that it prepares the armed services for the future. For example, more than a decade ago when research on efficient downsizing was first funded by the Army Research Institute, the country was in the middle of a large military buildup. It took years to understand how to accomplish downsizing without drastically reducing strength. But when the time came to use it, the research had been done. The results of that research would not possibly have been ready for use if contracts started being let for the research when it was realized that the Defense Department would need to downsize. Loss of preparedness is the price the armed services would pay for ending their ongoing behavioral research program.

Our third objection to this contemplated cut is that its effect will be to cause the stagnation of militarily important behavioral research. We believe this will happen because we have witnessed such an outcome from the practices of U.S. industry. While some U.S. industries have maintained laboratories for hardware, software and pharmaceutical development, there are few industries that maintain behavioral research capabilities. Instead, companies purchase such knowledge from vendors. The effect of that mode of operation is that the consumers never put resources into advancing knowledge, that is, into advancing the sciences whose knowledge they wish to use. The result is that other countries, most notably Japan, have invested more in advancing behavioral science related to industry and have been quicker to apply the latest innovations than has the U.S. The U.S. has had to look to Japan for innovative business practices even though it was U.S. basic research that motivated Japanese innovation in the first place. Our military should not place itself in the position that our U.S. businesses have. If the military does not support development of the knowledge it needs, then what it will get will be off-the-shelf, generic, and often outmoded knowledge. That is not a sensible course to take, and we hope this Subcommittee will not be supportive of such a move in future budgets.

FISCAL YEAR 1997 BASIC RESEARCH BUDGET REQUEST

We felt it was important to bring this possible future development to your attention. But we also do not want to neglect the subject at hand, namely the fiscal 1997 budget request for research. After its comprehensive review several years ago, the Defense Department underscored the importance of basic research to the continued security of the country. That decision to make basic research a priority even as other programs were to be cut was a very practical decision. To maintain the security of the country, it is always necessary to anticipate future needs. That is the essence of preparedness, and basic research produces the knowledge base that assures preparedness. The impact of that decision is reflected in the fiscal year 1997 request for research. While exploratory development or 6.2 research is being cut by about 6 percent, 6.1 or basic research across all service branches is slated for a 2 percent increase, resulting in an overall 3.5 percent cut for defense technology base funding, not taking inflationary losses into account.

While we note and welcome the requested increase for overall basic research, we would also note that the request does not take into account the amounts that these budgets may be taxed in fiscal 1997 to help pay for unbudgeted peace keeping efforts around the world. The research budgets are especially vulnerable to such taxation because research money tends not to be committed all at once near the beginning of the fiscal year. Rather, it is paid out gradually through the whole year, and thus tends to be the kind of money that is available for reprogramming when emergencies arise. Obviously such abrupt rescissions of funds are very disruptive to ongoing research programs. Cognitive and neural science research programs at the Office of Naval Research, for example, were very hard hit this fiscal year in order to collect funds to pay for peace keeping in Bosnia.

We would hope that the Congress would consider some mechanism in the future to provide for unbudgeted peace keeping efforts. Perhaps something akin to the Federal Emergency Management Agency is in order—some entity with its own budget whose purpose is to bring some order to our response in emergency situations. Military research is going to be damaged if the research budgets continue to be unreliable, and that is not in the best interest of the country.

That said, we urge the Subcommittee to support the Department's request for overall 6.1 research funding. That would allow the basic research budget to grow 2 percent from $1.126 billion to $1.156 billion, a level that is still lower in unadjusted dollars than the basic research expenditure in fiscal 1994 ($1.167 billion). In the ideal world, 6.1, 6.2, and 6.3 research would remain closely linked conceptually and in terms of funding. This year the developmental parts of the research continuum are to be cut. Given the fiscal constraints, it makes most sense in the short term to preserve and enhance the fundamental knowledge base, since without that base further development is not possible even if money is available. But we hope the decline of exploratory and advanced development research will not be a long-term fixture of the budget since at some point it is necessary to capitalize on basic knowledge in order to realize a return on the investment in producing that knowledge.

THE FISCAL YEAR 1997 BASIC BEHAVIORAL SCIENCE RESEARCH BUDGET

Of course, within the 6.1 budget, the scientists of the Federation have a special concern for the basic behavioral science research budget. Those are not numbers you will find easily in the general budget documents that accompany the administration's budget request. Most behavioral science funding is found in two DOD research categories: biological sciences, and cognitive and neural science. The major funding of behavioral science is to be found in the latter category with occasional support also coming through the biological sciences. The overall request for biological sciences for fiscal 1997 is $66.8 million, an increase of 1.6 percent over the $65.7

million allocated for fiscal 1996. The overall request for basic research in cognitive and neural science is $34.5 million, or 1 percent over the $34.1 million that was allotted for fiscal 1996. Obviously these are very modest increases since with losses in buying power resulting from inflation, they amount to slight cuts. Nevertheless, in unadjusted dollars, cognitive and neural science in each service with the exception of the Army is slated for a slight increase. We ask the Subcommittee to support these slight increases. And we note, as we have noted for the past three years, that the Army's pattern of behavioral science funding runs counter to that of the other services.

We continue to find the cuts at the Army remarkable because the Army remains the most personnel-intensive of the armed forces yet continues to put the least research resources into making the most of its investment in personnel. We are also concerned because the Army funds almost all the research that is done on leadership in this country. As the Army budget shrinks, this area of research, an area of clear importance in the defense of the nation, comes closer and closer to extinction.

The Army request this year for basic cognitive and neural science research is $5.7 million, down from the $6 million it received in fiscal 1996. We would ask the subcommittee at the very least to restore funding to the 1996 level. In fact, rather than simply freezing this research budget, we think it should be put on the path of slow but reliable growth. Any organization that spends sixty cents out of every dollar on personnel ought to put a reasonable investment into research to assure that the human resource is well utilized. I thank the Subcommittee for this opportunity to present our views.

STATEMENT OF JOHN N. STURDIVANT, NATIONAL PRESIDENT, AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES, AFL–CIO

Senator STEVENS. Our next witness is John Sturdivant, the national president of the American Federation of Government Employees, AFL–CIO.

I notice, John, you came in after I had to make the unfortunate announcement we have got to cut this one short today. I have to limit you to a few minutes, my friend. I have looked over your statement, however, and we will print it in full in the record.

Mr. STURDIVANT. Thank you, Mr. Chairman. With your concurrence, I would hope that my statement could be placed in the record, and I will summarize my summary, which has already been summarized many times.

I am president of the AFGE, representing some 700,000 Federal workers, 300,000 who work in DOD. I came in, I have listened to some of the witnesses, and I heard them asking for appropriations for very worthy causes.

I am going to do something different. I am going to tell you how to save some money, and that is, of course, I know that this committee has a very different jurisdiction on the area of privatization and the Pentagon's proposal to privatize everything it can whenever it can however it can, but I would think that the committee should address this in its deliberations and express some interest in it, because I think it is important in a time of increasingly decreasing resources.

I think if you take a look at the Pentagon's proposal on privatization you have to recognize that they are asking you to turn this broad authority over to some of the same people who misplaced $15 billion, as reported by the General Accounting Office and as reported in the Washington Post.

The DOD Comptroller General himself said they did not know where the money went, they did not know who got the money, they did not know whether the bills were paid, and they did not know whether the work was done. These are the same people, of course, who want to have you give them additional authority and give them additional capability to privatize.

We have expressed our concern with the Clinton administration. We told them that they were wrong, dead wrong on this.

As you know, the Senate Armed Services Committee skillfully picked the Pentagon's proposal apart. They settled on a 50–50 compromise for core work and the depots and, of course, we would rather retain the 60–40 that we presently have now. GAO has indicated that the Pentagon, the DOD has not been able to justify whether or not they are able to meet their readiness needs.

We think this is a bad proposal. We think it is bad policy. We think that it will compromise readiness, not improve readiness.

We would also like to note, as you well know from the Federal workers in the State of Alaska, Federal employees want to compete, can compete, are ready to compete, and most of the times when given an opportunity to compete, 90 percent of that time we win the work.

So I ask you to take a very strong look at that, Mr. Chairman. We would ask that the Senate take a look at that. We think the Pentagon is off base. We do not think that they need the broad authority they are asking for to privatize.

Finally, to underscore how strongly we feel about that in AFGE, as you know, I have a very stable, I believe—although I have to get elected, too, I have a very stable job as president of AFGE, but if I was looking for work and did not have a job, I would stand out in front of the Pentagon, put a sandwich board in front of me, and say, I am a contractor. Throw money at me. That is basically the essence of the Pentagon's proposal.

PREPARED STATEMENT

I ask that you consider my whole statement, and I believe I finished presenting my points of view before the yellow light went on, and we can use the rest of the time to answer any questions that you might have, Mr. Chairman.

Thank you.

[The statement follows:]

Prepared Statement of John N. Sturdivant

Mr. Chairman and Subcommittee members, my name is John N. Sturdivant. I am the National President of the American Federation of Government Employees, AFL–CIO, which represents over 700,000 federal employees, including 300,000 who work for the Department of Defense (DOD). I thank the Subcommittee for this opportunity to testify on the fiscal year 1997 defense appropriations bill (H.R. 3610). I also welcome this opportunity to work with the Subcommittee in addressing the needs and concerns of our federal workforce. As Americans as well as federal employees, we take seriously our role in keeping America's defense strong and reliable. Like you, Mr. Chairman, and the other members of this Subcommittee, we are determined to ensure that DOD continues to be ready to meet any threat to the security of our nation.

While there are many important issues affecting our federal workforce which this Subcommittee will consider, I will limit my statement today to the six issues which we deem to be of the greatest importance to the American men and women who ensure our national defense. These issues are: Depot privatization; Competitiveness issues; DOD Civilian personnel ceilings; Conversion of military to civilian positions; Fire fighters and security guards; and Civilian technicians.

DEPOT PRIVATIZATION

I was surprised and dismayed that the Administration permitted Pentagon officials to go forward with a wholesale privatization proposal in their recommendations to the Congress for the defense authorization bill. While this matter is not one normally falling within the jurisdiction of this Subcommittee, I feel it appropriate to address it during my testimony today, especially given the interest and expertise of the Members.

As the Members may recall, the Pentagon's wholesale privatization proposal would have freed DOD of virtually all Congressional safeguards, controls, and oversight. DOD sought to, among other things, repeal the 60/40 safeguard for division of depot maintenance workload, scrap the rule requiring that depots be allowed to compete for work over $3 million before it can be privatized, privatize work that heretofore had always been considered "core" work that was absolutely essential to national security, defy the will of Congress by preventing the depots from competing for work not considered to be core, and subvert the Base Realignment and Closure process by privatizing-in-place the excess capacities at Kelly and McClellan Air Force Bases.

Mr. Chairman, AFGE regarded the privatization proposal as nothing more than an attempt to slowly but surely eliminate the public sector depot system. As Mr. Robert T. Mason, the Deputy Undersecretary of Defense for Maintenance, Policy, Programs and Resources, told a Congressional delegation last February, "If the depots don't get any new work from new weapons systems or from closing depots, they will all be closed in nine years."

While decreasing readiness, the Pentagon's privatization proposal would have also increased costs to the taxpayers. Depots would have been allowed to compete for only that non-core work "which industry cannot or will not compete for at reasonable cost." That this would have hit taxpayers directly in the wallet is simply not subject to dispute. As the General Accounting Office (GAO) reported, "privatizing without public-private competition and/or privatizing into a noncompetitive environment would not likely result in expected savings and may actually be more costly."

The House National Security Committee completely rejected the Pentagon's wholesale privatization proposal and upheld the 60/40 safeguard. However, the Senate Armed Services Committee, while skillfully picking apart the Pentagon's proposal, ultimately settled on a 50/50 "compromise." Although the "compromise" would allow the depots to compete for work that was not core and require that core be defined with national security in mind, rather than the needs of the contractors, it gives Pentagon managers more discretion than they can handle and less oversight than they need.

As the most recent GAO reports made clear, no convincing case can be made in support of a 50/50 split—let alone DOD's original privatization agenda.

DOD doesn't really need the "flexibility" it is seeking through repeal of the 60/40 safeguard in favor of a 50/50 split.

—"* * * (T)he services (already) have some latitude to contract out additional depot maintenance work without breaching the 40 percent threshold for almost all services and commodities."

—DOD has "provided no examples of particular instances when the 60/40 provision has inhibited the Department from contracting out depot maintenance work it wanted to privatize."

—Further, DOD implicitly admits that the 60/40 safeguard is working just fine. "DOD's workload distribution report did not cite any direct effects of the 60/40 provision on military readiness or national security."

—Finally, DOD can offer "no documentation to show that its plans to rapidly increase the private sector's share of depot maintenance workload will be cost-effective."

If fair accounting procedures were finally used, it would be shown that the overall depot maintenance workload split is already 50/50. As is common knowledge, a portion of the funds expended on the maintenance workload assigned to the public sector is ultimately used for private sector contracts for parts and material, maintenance and engineering services, and other goods and services. Also, some types of depot maintenance activities, such as interim contractor support and contractor logistics support, are not counted against the private sector. "If included," GAO reports, "(those) other goods and services procured from the private sector would increase the private sector's share (of the depot maintenance workload) above 50 percent." This means that 50/50 split advocates should declare victory and go home because they already have all that they profess to want. It also means that the Senate's 50/50 "compromise" might actually replace the 60/40 safeguard with a ratio closer to 40/60. This is clearly unacceptable to AFGE and the members it represents.

What galls AFGE the most about the Senate's 50/50 "compromise" is that DOD is inexplicably being rewarded for its disregard for federal employees and its contempt for taxpayers. While the 50/50 "compromise" would not give the Pentagon's managers all that they want, it would give them far more than they deserve. As GAO's reports have made clear, DOD has failed to make a case for a 50/50 split—let alone its original privatization agenda. Compromise is appropriate when differences between two reasonable positions need to be resolved. But compromise is made excruciatingly difficult when one party clings tenaciously to a patently unreasonable position.

As it has done in years past, Mr. Chairman, I urge the Subcommittee to support a strong public depot system by providing the funding necessary for the depots to accomplish their important work. Further, I urge the Subcommittee, as it has also done in years past, to continue to allow the depots to compete for work. Such a policy ensures both readiness and economy and will keep our nation safe and solvent.

ANOTHER COMPETITIVENESS ISSUE: "THE 10-EMPLOYEE RULE"

I urge the Subcommittee to continue to oppose DOD's efforts to repeal the pro-competition "10-employee rule," which denies appropriations for conversion to contractor performance for all activities involving 10 or more employees until a most efficient and cost-competitive organization analysis is completed in accordance with OMB Circular A–76 and its Supplement. The House National Security Appropriations Subcommittee turned aside such a request earlier this year, and I urge you to do the same. Making DOD more efficient means increasing the opportunities for genuine competition between the public and private sectors, not allowing Pentagon managers to do away with such opportunities altogether.

DOD PERSONNEL CEILINGS

I am, as is this Subcommittee, greatly concerned over the effect Full-Time Equivalent (FTE) personnel ceilings have had on our federal defense workforce and on our nation's readiness. Personnel ceilings are forcing some military bases to lay off their civilian employees and then to contract out their work at a higher cost. This problem is especially noticeable at service depots where federal employees are getting reduction-in-force notices while planes, tanks and ships await repairs. This condition, if permitted to continue, hurts the taxpayer who will pay more for less, degrades and demoralizes the workers supporting our forces in the field, and negatively impacts our defense capability.

I am not alone in my concern. The personnel directors of the four branches of the armed forces in their testimony last year before the Senate Armed Services Personnel Subcommittee described this same situation. They bemoan the fact that civilian ceilings—not workload, cost, or readiness concerns—are forcing them to send work to contractors. They are concerned that this is being done at greater expense than if the work had been kept in-house. They and their services are appalled that their depots must turn away valid, funded workload requirements because of the ceiling. They argue that management-by-FTE-ceiling generates problems which reduce readiness, and limit the flexibility of our depots to adjust and to meet quickly the critical, unprogrammed, surge requirements of our operating forces.

Defense authorizers and appropriators have attempted to prohibit DOD from managing on the basis of FTE ceilings. Last year's defense appropriations law included such a prohibition, as does the House's version of this year's defense appropriations bill. I encourage the Subcommittee to include a similar provision in its version of the bill. Despite such efforts, Mr. Chairman, there are still instances of management-by-FTE-ceiling. Consequently, I urge you and the Members of this Subcommittee to indicate to DOD the seriousness with which this requirement is regarded. Finally, I must qualify my remarks by stating that non-DOD agencies should not be required to absorb reductions previously envisioned for DOD. We must not relieve the problems caused by the artificially created DOD in-house staffing shortages by exacerbating the same problems in other agencies.

CONVERSION OF MILITARY TO CIVILIAN POSITIONS

I was encouraged that last year's defense authorization bill required the DOD to convert not fewer than 10,000 military positions to performance by civilian employees by September 30, 1996, and to report to Congress no later than March 31, 1996, on their implementation plan.

Despite the Congressional mandate, DOD officials have indicated to AFGE that they have little interest in carrying out the law. In fact, DOD has failed to supply the implementation report required of it by the Congress. However, DOD officials have had time to persuade the Senate Armed Services Committee that the repeal should be watered-down and require that only 3,000 positions be converted. The House National Security Committee, which understands that using military personnel in positions wholly unrelated to combat-specific functions is costly since civilians are significantly cheaper, would hold firm and require all 10,000 conversions to take place. One of the arguments DOD has used in campaigning against this requirement is that no money was appropriated to pay for the civilian replacement positions. I urge the Subcommittee to rectify this problem. Making appropriations for these positions will yield significant savings to the taxpayers.

DOD FIRE FIGHTERS

As we learned to our sorrow during the tragedy of Oklahoma City, disaster strikes without warning or without consideration for our capacity to meet it. This is why I ask the Subcommittee to support full funding of DOD fire fighter staffing levels, and ask your opposition to any legislative initiative which would eliminate the ban on contracting out federal fire fighting and security guard functions.

The functions of fire safety and fire suppression are not budgetary "nice-to-haves," or fiscal luxuries. In fact, we cannot afford to fail to fund the staffing levels of our federal fire fighters. Fire prevention and suppression are critical core defense functions. If not properly staffed, lives are placed at risk, readiness is reduced, and public property is endangered. Our federal fire fighters possess the rescue, fire prevention, safety inspection, hazardous and explosive materials training skills needed to meet the unique requirements of the military environment. For reasons of safety and security, fire prevention and suppression services should not be contracted out. Experience has shown that contractor and off-base fire personnel are not as responsive as federal fire fighters.

CIVILIAN TECHNICIANS

I am gratified that the Subcommittee saw fit last year to support our nation's civilian technicians with both funding and a safeguard which prevents reductions in civilian technician positions below authorized levels. The importance of the actions you took last year cannot be overstated. Historically, DOD has singled out civilian technicians to assume disproportionately the burden of any defense civilian workforce reductions. Because of your efforts last year, progress has been made toward ensuring an adequate number of qualified technicians are available and ready to serve our Guard and Reserve establishment. I thank you for this past support and ask that you reaffirm your commitment through funding and protective language similar to that contained in last year's bill.

Mr. Chairman, This concludes my testimony. I appreciate the opportunity of presenting it.

Senator STEVENS. Well, I do not think I have any questions, because it is my recommendation that this subcommittee and full committee not take any action to implement Deputy Secretary John White's proposal for privatization this year.

I think that there are too many ifs in there. The bill is on the floor. We do not know what the authorization bill will be, but I do not think we will attempt to implement it, and if it is implemented it will come through the DOD bill, and there may be amendments out there to it, but we are not going to implement that proposal. We did not have time to have hearings on it, and I do not see any reason to move forward on it until we do.

Mr. STURDIVANT. Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

Now we will turn to Veronica Gonzalez, interim executive director of the American Indian Higher Education Consortium. Oh, I believe she canceled. Yes; sorry about that.

Dr. Robert Plemmons will be next. Dr. Plemmons represents the Joint Policy Board for Mathematics.

STATEMENT OF ROBERT PLEMMONS, Ph.D, WAKE FOREST UNIVERSITY, REPRESENTING THE JOINT POLICY BOARD FOR MATHEMATICS

Dr. Plemmons. Thank you very much, Chairman Stevens. As you say, I represent the Joint Policy Board for Mathematics. I am Reynolds Professor of Mathematics and Computer Science at Wake Forest University in North Carolina. Also, I have worked for the Department of Defense since 1973 under basic research grants, first with the Army Research Office, and more recently with the Air Force Office of Scientific Research.

Mr. Chairman, the JPBM urges Congress to continue to recognize DOD's investment in basic research, including research conducted at universities, as an integral component of research and development efforts undertaken to meet the Nation's defense needs. Particularly, we ask that you provide full funding for this investment.

Let me draw a few analogies of the type of work that we are involved in. It has been said that World War I was a war involving chemistry, with ballistics and gas warfare. World War II was a war involving physics, with the development of nuclear weapons.

More recently, engagements such as the gulf war have involved extensive high technology facilitated by the research of mathematicians and computer scientists. This work provides much greater protection for our military personnel, and, frankly speaking, high technology in our opinion saves lives, saves American lives.

By engaging the Nation's research universities in this high technology research process, DOD has access to first-rate researchers and the latest discovery in pursuit of its R&D objectives. The origins of many key defense technologies, such as control theory, can be traced to DOD support for basic research conducted at U.S. academic institutions.

Another component of supporting university-based Department of Defense research is the education component. Continued funding of university researchers through the Defense Department facilitates the continued accessibility of a cadre of researchers who are familiar, graduates who are familiar with defense-related research when they graduate from college, so there is an important educational component to the defense-related funding also.

These thoughtfully planned investments need stable, year-to-year funding, and stability in terms of graduate students, in terms of long-term projects, to avoid curtailing the scope of promising research that DOD has identified as relevant to its missions.

In particular, DOD researchers such as myself work very closely with military research organizations, military laboratories, Department of Defense laboratories. For example, next week I will be spending the week with a group of mathematicians at Wright Laboratories in Dayton, OH, interacting with the researchers there in areas such as computational fluid dynamics, image processing, control methods, and statistics.

The following month I will be at Philips Air Force Laboratory in Kirtland Air Force Base in Albuquerque, NM, with the Lasers and Imaging Division there. That is a particular facility I have visited quite a bit in my work with the Air Force Office of Scientific Research, and so we have quite a bit of interaction with Government laboratories and Government employees through our research efforts.

As stated earlier, I have been working with DOD support since 1973, first with the Army Research Office and now with the Air Force Office of Scientific Research, and my current work is related to atmospheric imaging, imaging through the atmosphere, and laser weapons development programs through the Air Force Philips Laboratory in Kirtland AFB, NM.

The difficulty with imaging through the atmosphere, of course, is the blurring effect of the atmosphere and other operations that affect our intelligence gathering facilities. It affects our ability to image satellites.

I brought a couple of exhibits along. This is a satellite image taken from the Amos Center in Maui, HI, before our mathematical processing. This is the result of doing the processing. You get a much clearer image, image postprocessing, adaptive control methods. Here is a picture of a Russian satellite, a former Russian satellite that is now essentially space junk. You can see it is very blurred and difficult to identify. This is more easily identified. This is after our postprocessing techniques.

In addition to this work related to the Air Force Office of Scientific Research classification of satellites, we are also interested in working directly with the Airborne Laser Weapons Development Program.

PREPARED STATEMENT

Mr. Chairman, thank you very much for this opportunity to express our views regarding the fiscal year 1997 appropriations. We hope that you will continue to support the basic research, the high-technology research for the mathematical sciences.

Senator STEVENS. We have done that to the best of our ability, Doctor, and we will continue it to the best of our ability. Thank you very much.

Dr. PLEMMONS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF ROBERT PLEMMONS

Good afternoon, Mr. Chairman and Members of the Subcommittee. I am Robert Plemmons, Z. Smith Reynolds Professor of Mathematics and Computer Science at Wake Forest University. I appreciate this opportunity to comment on fiscal year 1997 appropriations for the Department of Defense. I speak on behalf of the Joint Policy Board for Mathematics, which represents three associations of mathematical scientists whose concerns encompass fundamental and interdisciplinary research; the applications of the mathematical sciences in science, engineering, and industry; and mathematics education at all levels. Today I would like to address DOD's investment in basic research in support of the defense mission, an activity funded out of the 6.1 R&D account.

Mr. Chairman, JPBM urges Congress to continue recognizing DOD's investment in basic research, including research conducted at universities, as an integral and foundational component of R&D efforts undertaken to meet the Nation's defense needs. We ask that you provide full funding for this investment, approximately $1.16 billion, including about $820 million for Defense Research Sciences, in fiscal year 1997.

Since World War II, the United States has relied on the superiority of its military technologies to achieve its national security objectives. Basic research is essential to the process of developing new technologies, improving existing ones, employing them as effectively as possible, and therefore maintaining superiority over the long term. By engaging the Nation's research universities in this process, DOD has access to first-rate researchers and the latest discoveries in pursuit of its R&D objectives. The origins of many key defense technologies can be traced to DOD support for basic research conducted at U.S. academic institutions.

The defense agencies that sponsor basic research—the Army Research Office, the Office of Naval Research, the Air Force Office of Scientific Research, and the Defense Advanced Research Projects Agency—have an excellent track record for making decisions about which areas are vital to DOD's technology goals and which researchers are best able to mine the scientific opportunities for contributions to national security. Rigorous internal decision-making processes guide these investments to ensure both scientific excellence and consistency with DOD's strategic priorities. They take full advantage of the robust U.S. research system, supporting work at a mix of universities, governmental laboratories, and sometimes in cooperation with industry.

These thoughtfully planned investments need stable year-to-year funding to avoid curtailing the scope of promising research that DOD has identified as relevant to its mission.

Let me demonstrate the importance of basic research to DOD's mission with some examples from my own field, the mathematical sciences. DOD's support for research in the mathematical sciences is most often motivated by the need to enhance the effectiveness, efficiency, and reliability of U.S. defense hardware and capabilities, for example, communications systems, cryptographic capabilities, and smart weapons technology. The field also underpins many critical and emerging technologies that are crucial to national security, like materials, robotics, and information technologies.

In many of the mathematical areas relevant to defense, university researchers are in an excellent position to make very productive advances. DOD-supported mathematical researchers often work very closely with their counterparts in DOD laboratories. I would also like to stress that university-based defense research makes an important contribution to mathematics, science, and engineering education, ensuring that we have a cadre of graduates who are acquainted with defense-related research.

I have been working with DOD support since 1973. In recent years my work has centered around the improvement of ground-based, air-to-air, and air-to-ground imaging systems through the development of adaptive optics and image post-processing techniques. The problem is that atmospheric turbulence and other optical aberrations impose serious limitations on the quality of data captured by optical imaging systems, whether it's satellites taking pictures of the earth or ground-based telescopes taking pictures of the sky.

Adaptive optics techniques involve measuring the atmospheric distortions and making real-time adjustments in how the images are captured, resulting in data that is of significantly higher resolution than it otherwise would be. For instance, telescopes can be built with deformable mirrors that change their shape depending on the level and nature of the atmospheric effects they need to overcome. Similar measurements and adjustments are used by imaging hardware on observational satellites. The accuracy of these images can be restored further, subsequent to their capture, by employing even more sophisticated computations. The resulting improvement in image clarity is easily demonstrated in "before" and "after" photographs.

Each stage of this "de-blurring" process-measuring the distortion, adjusting the equipment, and restoring the images—relies on rigorous mathematical and computational techniques to determine what compensations are needed to generate images of the best possible clarity. These techniques are being continually refined through frontier mathematical research, including my own, supported by the Air Force Office of Scientific Research.

Another area in which mathematical research is leading to very useful results is the handling and analysis of large volumes of data, something defense personnel and technology are faced with every day. For instance, let's again focus on observational satellites taking pictures of the Earth's surface. Those images have to be conveyed somehow back down to Earth before we can use them. The images are compressed into digital form and a digital signal is beamed to a receiver. It is imperative that the data be compressed in a way that allows the receiver to decompress it into usable form that accurately reflects the original data.

In the mid-1980's mathematical scientists invented a mathematical method to represent and convey signal and image data in a very efficient way. It enables compressed data to be retrieved and used as needed, very quickly, at different scales of resolution, and with little loss of accuracy, so that the most precise data can be used in real-time situations. DOD scientific personnel recognized early that this was a breakthrough that would lead to significant improvements in defense operations.

The Air Force and DARPA continue to support research into these mathematical techniques, which go by the name of "wavelets", and DOD is putting them to work in a variety of ways.

For instance, it appears that one day the techniques can be used for automatic detection and recognition of targets, which is simply not possible with older methods. That is, the analysis of data while it is still compressed can be automated, so that when, say, a satellite finds something that might be of interest to DOD, the appropriate personnel can be instantly alerted to its existence. Presently, separate and cumbersome processes must be used to analyze collected data after it is decompressed.

Incidentally, it turns out that the FBI found wavelets to be the ideal method for compressing fingerprint images, because the fine details of the images are preserved so well.

Here is another instance in which powerful mathematical techniques, used in combination with advanced computers, are providing dramatic solutions to key national security problems. DOD needs to be able to predict the scattering of radar signals from aircraft so their vulnerability to detection can be analyzed and so that new aircraft with low radar visibility can be designed. The programs currently used to make the predictions take a long time to run, so they are only practical when applied to small components of an aircraft, rather than to the entire aircraft.

Mathematical researchers are working to develop computational codes that can predict the radar-scattering patterns of large objects more efficiently. The new, faster techniques will make it possible to compute patterns across major components or entire aircraft in an acceptable period of time. For example, as the size of the object to be analyzed increases by a factor of 10, the computing time using existing methods increases by a factor of 1,000, while the newer algorithms would run in just one percent of that time.

I hope these examples demonstrate how research in the mathematical sciences leads to time- and money-saving technologies for use in critical defense systems. DOD's ongoing pursuit of new developments in basic science will no doubt continue to yield these kinds of results. So let me again urge you to continue your support for DOD's investment in basic research and for the contributions of university-based researchers. Thank you for this opportunity to express our views for the record regarding fiscal year 1997 appropriations. I would be pleased to answer any questions you might have.

BIOGRAPHICAL SKETCH OF ROBERT J. PLEMMONS

Bob Plemmons received his B.S. degree in Mathematics from Wake Forest University in 1962 and his Ph.D. in Applied Mathematics from Auburn University in 1965. He was on the faculty of the University of Tennessee, Knoxville, from 1967 to 1981, serving a term as Head of Computer Science, and at North Carolina State University, Raleigh, from 1981 to 1991. There, he helped to found the University of North Carolina System Center for Research in Scientific Computation in 1988 and served as Director of the Center until 1991 before accepting a distinguished research professorship at Wake Forest University.

He currently works in scientific computation and its applications to signal and image processing, and in optical electronics. Professor Plemmons is the author of over 150 research papers and five books, and is on the editorial boards of six journals. He has directed twenty-six M.S. students and sixteen Ph.D. students in his career, and has given over three-hundred invited research lectures, including lectures in sixteen foreign countries. He has been awarded research grants from the Air Force Office of Scientific Research (AFOSR), the Army Research Office (ARO), the Department of Energy (DOE) the National Science Foundation (NSF), and the North Atlantic Treaty Organization (NATO). DOD funding has been continuous since 1973, and current research funding comes from the AFOSR.

Non-academic positions include minor league baseball with the Baltimore Orioles (four summers), research positions at Martin-Marietta Company and the National Security Agency, and consulting positions with the Oak Ridge National Laboratory, Boeing Computer Services, and General Electric R&D.

He is a member of the Institute for Electrical and Electronics Engineers, the International Society for Optical Engineers, the Optical Society of America, and the Society for Industrial and Applied Mathematics.

His current position is Z. Smith Reynolds Professor of Mathematics and Computer Science at Wake Forest University in Winston-Salem, North Carolina, and is also Adjunct Professor in Computer Science at North Carolina State University in Raleigh.

STATEMENT OF JOHN J. GEOGHEGAN, LEGISLATIVE ASSISTANT, AIR FORCE SERGEANTS ASSOCIATION

Senator STEVENS. Next is John Geoghegan of the Air Force Sergeants Association. Nice to have you here.

Mr. GEOGHEGAN. Thank you, Mr. Chairman, and thank you for this opportunity to express AFSA's concerns regarding this year's Defense appropriations. Many, though not all, of our concerns are also those of the member associations of the National Military and Veterans Alliance, of which ASA is a participating association.

Because the Nation is committed to an All-Volunteer Force, it must also commit itself to maintaining the quality of their lives. Last year, the initiative you supported showed the enlisted community that their service and sacrifice is honored. While providing a quality military lifestyle involves costs, the return on this investment is the most respected and effective military in the world.

AFSA asks that you consider the following concerns and those others that are contained in my written statement.

The Defense Commissary Agency reported that $24.6 million in food stamps was cashed at commissary registers during 1995. Because current law sets military pay raises to be the full employment cost index, ECI, minus one-half of 1 percentage point, military pay will probably keep falling further behind the actual inflation rate as measured by the Consumer Price Index. This means that it will be more difficult for enlisted members to maintain an adequate standard of living.

AFSA recommends that a full catchup pay raise should be provided. AFSA also urges that compensation be adjusted to parallel the annual inflation rate. AFSA would also suggest that enlisted pay be adjusted to reflect the greater responsibilities that these members have assumed because of the drawdown.

The basic allowance for quarters has not been maintained at the congressionally intended level of covering, together with the variable housing allowance, 85 percent of off-base housing costs. While real progress was made last year to close the gap, members still pay about 19.6 percent of out-of-pocket costs.

The Senate Armed Services Committee, the SASC, has recommended a 4-percent BAQ increase. However, the House proposes a level of 4.6 percent. AFSA asks that you support the House recommendation.

The SASC has also authorized an increase in the amounts reimbursed to service members for the cost of permanent change of station [PCS] moves. These are long overdue. For enlisted members, PCS moves are losing propositions.

The SASC language includes providing a round-trip travel allowance to the point of shipping and retrieving a privately owned vehicle. For example, military orders may return a service member from overseas to a duty station in Texas, with New Orleans being the nearest port handling vehicle shipments. Today, the costs of retrieving the vehicle are out of pocket.

SASC also recommends that the Government pay for storage of a privately owned vehicle when transporting it is not allowed—for example, to Japan. Service members are faced with paying to store the vehicle themselves, or selling it. This provision would cover storage expenses until they return.

The House Defense bill also includes two additional items that will greatly help those who are moving. One would extend temporary lodging expenses to service members making their first PCS. The current law only authorizes this to military members moving to their second or later duty station.

The other item would increase the dislocation allowance from 2 to 2½ months at BAQ.

AFSA recommends that all four initiatives be fully funded. Service members have been faced for years with exorbitant out-of-pocket costs when moving under Government orders, and they deserve better.

Impact aid was a program that I was prepared to discuss a little more extensively. For time purposes I am going to cut that down. I know the National Military Family Association is going to be discussing that, but I would like to add that it is an important program. The education of military children is defense related, and we ask you to support supplemental impact aid funding in the Defense appropriations bill.

Mr. Chairman, once again, the enlisted members of the Air Force, Air National Guard, and Air Force Reserve appreciate your strong commitment to funding a quality force, including a heightened focus on the quality of their lives.

PREPARED STATEMENT

Military retirees also appreciate your efforts in trying to maintain their earned benefits. AFSA is certain that your efforts will continue, and that these recommendations would help your deliberations.

This concludes my statement.

Senator STEVENS. Thank you very much, and I agree with you, there is some redundancy there. I appreciate that very much.

[The statement follows:]

PREPARED STATEMENT OF JOHN J. GEOGHEGAN

Mr. Chairman and distinguished committee members, thank you for this opportunity to express AFSA's concerns regarding the fiscal year 1997 Defense Appropriations. Last year, the initiatives this committee supported showed the enlisted community that this Congress honors their service and sacrifice. Your actions helped improve the quality of their lives. Once again, for the millions of active and retired enlisted members of the Air Force, Air Force Reserve and Air National Guard, I would like to comment further on these initiatives and to suggest where AFSA would like you to further concentrate appropriated support.

Since this nation is committed to an all-volunteer force, which is primarily enlisted, so too must it commit itself to maintaining the quality of the lives of those who serve. To do less would jeopardize readiness, recruitment and retention. A prime concern, beyond the number of those serving, is the quality of those who are recruited and then commit to making the military a career. AFSA would suggest there is a direct correlation between a decent military lifestyle followed by a protected retirement system and our ability to continue to achieve recruiting and retention objectives in an all-volunteer force. While providing a quality military lifestyle involves costs, AFSA maintains that the return on this investment is the most respected, most effective Armed Forces in the world.

Mr. Chairman, a major consideration in deciding where to place priorities is the demographics of the all-volunteer force. Seventy percent of the Air Force is married. So, in addition to those who are single or unaccompanied on their tours of duty, the needs of the military family (often left behind during deployments) have become increasingly important. This is most true for enlisted members. AFSA asks that you consider the following concerns expressed by members of this association.

ACTIVE DUTY COMPENSATION

Pay.—Those who are paid the least in our all-volunteer force are its enlisted members. In fact, the Defense Commissary Agency reported that $24.6 million in food stamps was cashed in at commissary registers during 1995. Inflation protection is critical for these young men and women and their families. As the enlisted force assumes more and more duties formerly carried out by officers, so too should that increased contribution be recognized in the way we compensate them. It is estimated that active duty pay is approximately 13 percent below the pay of comparable civilian jobs—a gap that should be closed in an all-volunteer force. Because current law sets military pay raises to be the full Employment Cost Index (ECI) minus one-half of a percentage point, that very law mandates that military pay will continue to fall further behind the actual inflation rate (as measured by the Consumer Price Index). This guarantees it will be more difficult for enlisted military members to maintain an adequate standard of living. The ECI does not indicate the true cost of living, since it does not reflect the overall inflation rate.

Recommendation: At least for enlisted members, a full catch-up pay raise should be provided. Further, AFSA urges that enlisted compensation, in particular, be provided pay adjustments that parallel the rate of inflation each year. AFSA would also suggest that, within the military compensation system, enlisted pay be adjusted upward to reflect the higher levels of responsibility assumed today by enlisted members. Despite this responsibility shift, annual across-the-board pay raises have pushed the enlisted and commissioned pay scales further and further apart. It is the low pay and poverty-level wages of junior enlisted members that are most often cited in calling for pay raises. Within the scope of this committee, we urge that enlisted members be given the highest allowable pay raise.

Basic allowance for quarters (BAQ).—BAQ has not been maintained at the congressionally intended level of covering, together with the Variable Housing Allowance, 85 percent of off-base housing costs. While significant progress was made last year in closing the gap, service members must still pay approximately 19.6 percent of out-of-pocket costs.

Recommendation: The Senate Armed Services Committee (SASC) has recommended a 4 percent BAQ increase; however, the House National Security Committee (HNSC) proposes a 4.6 percent hike. AFSA asks that you support the House recommendation.

Reimbursement procedures.—The SASC has authorized an increase in the amounts reimbursed to service members for costs associated with Permanent Change-of-Station (PCS) moves. These are long overdue. Out of pocket costs during PCS moves are particularly damaging to enlisted members and their families. It often takes a whole tour to re-establish financial solvency after a PCS move, only to be followed by another move within two or three years. For enlisted members, PCS moves are losing propositions. The SASC language includes:

—Providing a round-trip travel allowance to the point of shipping/retrieving a privately owned vehicle (POV). For example, military orders may return a service member from overseas to a duty station in Texas, with New Orleans being the nearest port handling such shipments. Today, the costs associated with retrieving the POV from New Orleans come out-of-pocket. The SASC initiative would reimburse the member for expenses associated with traveling to retrieve the POV.

—Pay for storing a privately owned vehicle when transporting it is not allowed. For example, service members may not currently bring their POV to Japan. They are faced with paying to store the vehicle themselves or selling it. This provision would cover storage expenses until they return.

The HNSC includes two additional items that would greatly help those who are moving:

—Extend temporary lodging expenses to service members making their first permanent change of station (current law only authorizes this to military members and families moving to their second or later duty station).

—Increase the dislocation allowance from two to two-and-a-half months of BAQ.

Recommendation: Fully fund all four initiatives; service members have been faced, for years, with exorbitant out-of-pocket costs incurred when moving under government orders. They deserve better.

CONUS cost-of-living adjustment (COLA).—The CONUS COLA is important for service members living in high-cost areas. It helps to prevent the erosion of their living standard when assigned to expensive living areas under government orders.

Recommendation: Fully fund the CONUS COLA; further, AFSA requests that it be funded at a higher level so that it covers more areas than at present.

HEALTH CARE

Fiscal year 1997 shortfall.—Health care is the most important non-pay benefit for enlisted members. Historically, it has been used hand-in-hand with the promise of full inflation-adjusted retirement pay as a key incentive to remain in the military for a full career. The end of the Cold War and the downsizing of our military forces notwithstanding, the fact is that most retirees served a career believing what they were told: That free, lifetime health care would be a retirement benefit. Today, "space-available" care is becoming harder to obtain. There is increasing bitterness among military retirees as this benefit erodes. Mr. Chairman, DOD is facing a minimum $473 million shortfall in its fiscal year 1997 Defense Health Program if the administration's proposed fiscal year 1997 budget is approved. DOD asserts that this shortfall forces a clear conclusion: The only way to reduce costs without affecting the quality of care would be to reduce the number of space-available care opportunities for retired beneficiaries by approximately 132,000.

Recommendation: The House National Security and Appropriations Committees have allocated funding to make up the difference. AFSA asks that you appropriate at least enough dollars to cover the administration's programmed shortfall. Whatever the problem might be, a completely unacceptable result would be the loss of beneficiary access for our most vulnerable veterans. This committee can act to prevent a further reduction of the military health benefit by adding at least $473 million to the administration's DOD health care budget.

TRICARE mail order pharmacy program.—Pharmaceuticals are often the most expensive need of older military retirees. When they are faced with these costs, they must pay a disproportionate share of their retirement in huge out-of-pocket costs. Again, this most affects the enlisted retiree. These retirees have expressed to AFSA on numerous occasions that these expenditures are a further abrogation of the promises that were made.

Recommendation: TRICARE's mail order and retail network pharmacy programs should be expanded to cover all beneficiaries, not just TRICARE participants and BRAC-affected Medicare-eligibles. Expanding this low-cost alternative program to cover everyone would at least provide some protection to this vulnerable group, since Medicare does not cover pharmaceutical costs. If this program is to provide equitable medical care to military retirees, it should do so for all who are eligible—regardless of where they happen to live. No other federally sponsored medical program discriminates in this way.

HOUSING

Family quarters.—Half of all Air Force families live in on-base housing. However, even though DOD owns 114,000 houses and leases an additional 9,000 in the United States, 39,000 families are on waiting lists for on-base housing. Another oft-repeated fact is that the average base housing is now in its fourth decade of use, and many require significant work in order to be considered acceptable under today's standards. At current levels of funding, 24 years will be needed to end the backlog. One clear problem with such a long time frame is that once much of this projected construction is complete, another number of the units will require replacing. In other words, a long time frame would result in never getting all units up to a livable standard.

Recommendation: In addition to supporting, in the full committee, privatization initiatives that are being undertaken, this subcommittee should fund the SASC's recommended amounts for maintenance and operation. AFSA also supports the SASC's level of funding in the Family Housing Improvement Fund for private sector housing ventures.

Dormitories and barracks.—While military family housing unquestionably deserves attention, the concerns of the almost 70,000 single, unaccompanied enlisted members (most are grade E–5 and below) who live in on-base dormitories cannot be neglected. Their housing needs warrant focus because many career members will first live as junior airmen in these facilities. The message should be sent that their quality of life is important. Long-term neglect could adversely impact Air Force retention in the future.

Eighty-eight percent of single, unaccompanied members who live in dormitories and barracks most often cite the need for greater privacy as their chief housing desire. To support this, the Secretary of Defense recently signaled support of the "one-plus-one" dormitory standard, which AFSA endorses. This is a plan where two individuals have private bedrooms but share a common latrine and kitchenette. It is a fair, reasonable approach for a peacetime armed force. It is our hope that enough money will be allocated to implement this standard quickly. Of course, the same problem that exists for family housing affects barracks—never getting all housing up to standard under the current system. Only a strenuous effort now will result in the implementation of the "one-plus-one" standard in an acceptable time frame.

Recommendation: AFSA hopes that committee members will support the Air Force's stated desire to make as its first goal the elimination of central "gang" latrine dorms by the year 2000. This is a sound initiative that would offer a degree of privacy. In addition, AFSA supports the SASC's plans to construct or modernize barracks and living spaces (a large number of which would be for new or modernized living spaces that provide service members a private sleeping area).

Billeting for reserve component members.—There is an insufficient number of billeting rooms to lodge reservists during required training periods. With America's increasing reliance on its reserve component to handle its many missions around the world, now is the time to address funding to provide for the training required to keep them ready. As billeting facilities stand now, there is often a doubling up of all but chief master sergeants, colonels and squadron commanders during Unit Training Assemblies. In other cases, the lack of accommodations on-base requires training reservists to be billeted off-base at a significantly higher cost. Further, many on-base and contract quarters facilities do not meet minimum square footage requirements, and several still have central "gang" latrines.

Recommendation: We ask members of the committee to support the concerns of affected reserve component members. A recent study commissioned by the Air Force Reserve concluded that, when all costs are considered, the government would save over $400 million over a 30-year period by housing reservists in on-base billets rather than using contract quarters. In a time of increased reliance on the "Total Force," billeting construction standards and related funding must be changed to consider reserve component needs.

FAMILY SUPPORT

Due to financial considerations, enlisted military families usually find both parents working. Accordingly, affordable, accessible child care is one of the most important issues to these young men and women. Child care is essential because the majority of the 300,000 children 12 years of age and younger are from single-parent, dual-military or dual-working families. Child Development Centers (CDC) have become one of the most important Air Force programs on military bases, particularly for junior enlisted members. While military parents must pay for care in on-base CDC's, DOD helps subsidize these programs. Off-base care can cost two to four times more than CDC care. However, there is enough approved funding for only 57 percent of the CDC's' staffing needs. This particularly limits infant and toddler care, because one worker is needed for every four children in this age group.

Recommendation: AFSA supports, for fiscal year 1997, plans to bring staffing up to higher levels, which requires greater appropriated funding. The enlisted force needs greater help in this area.

MENTAL AND PHYSICAL FITNESS CENTERS

Past readiness requirements did not concentrate construction resources on those facilities that aid the mental and physical well-being of the Armed Forces. The increase in OPTEMPO and an emphasis on personnel health and quick deployability require the modernization of fitness centers. However, the average age of Air Force fitness facilities is 30 years, and 10 of these facilities require immediate upgrade. The recent quality-of-life survey showed fitness centers as one of the most important programs to service members. Additionally, the upkeep of libraries and dining facilities is crucial to efforts to maintain readiness.

Recommendation: AFSA supports DOD's goal to construct or modernize five physical fitness centers, but hopes that the committee will appropriate further funding to take care of remaining problem areas.

COMMISSARIES

This committee has a historical obligation to those who serve, and over the years, it has implemented programs that have built a sound military. One of the products of those efforts was the end of the Cold War. Since then, our military forces have been downsizing, and our nation has looked for ways to economize while still protecting its vital interests. One area of sharp concern is that of the commissary benefit, which is absolutely relied upon and is so important, particularly to enlisted active and retired military members. It, too, is a major career incentive. Studies and discussion continue on privatizing the commissary system, or changing it for one or more groups (such as retirees, dependents and survivors). AFSA foresees that, because of profit motives, privatization might well lead to the closure of commissaries in remote areas. This would harm enlisted members stationed in those places. Private contractors would not operate commissaries in these places because they would not be economical. That is the reason for the current system, which guarantees that most military members have access to the commissary's food cost savings, which helps them stretch their lower rates of pay. The commissary benefit is non-pay compensation that is very important to the financial well-being of enlisted families. In addition, retirees, dependents and survivors were promised, as part of their enlistment package, lifetime use of the current commissary system. Changing the system, in any way, would break another long-standing promise.

Mr. Chairman, we know that you will, because of the possible budget ramifications, be looking at the administration's "Performance-Based Organization" (PBO) initiative as it relates to the Defense Commissary Agency (DeCA). The proposed changes in labor and procurement laws and three-year budgeting could, in fact, be beneficial to the commissary system. However, the PBO focus must include the unique purpose for the commissaries and their important role as one benefit of serving in the military. That benefit must not be jeopardized.

Recommendation: Fully fund commissaries for this fiscal year. Further, carefully scrutinize the details of the PBO initiative as they are available, so that the benefit is not diminished through unwarranted price increases or the closure of needed facilities.

EDUCATION

Tuition Assistance.—One very important benefit that attracts young Americans to enter the military is the educational opportunities that they would not otherwise be able to afford. The services provided approximately $135 million in Tuition Assistance last year. This is money well spent, as it improves the quality of the men and women serving and helps prepare them for their eventual return to civilian status. Tuition Assistance is a wise investment that deserves full support.

Recommendation: Provide full funding for Tuition Assistance so this important recruitment tool and quality-of-life program can continue.

Impact Aid.—Impact Aid is a significantly important program. It provides funds to school districts in order to compensate them for the costs of educating the children of military members. While most Impact Aid funding is handled through the Department of Education, money has been appropriated (such as last year) as a supplement to that budget, used to aid those school systems most heavily impacted.

Recommendation: The House has authorized $58 million for fiscal year 1997 in Impact Aid funding. AFSA asks that this committee match that in order to help secure the education of military children.

FORGOTTEN WIDOWS

The Armed Services Committee has recommended a $165 monthly stipend to certain widows of retired active duty and reserve members who died before the Survivor Benefit Plan was enacted. They have become known as the "forgotten widows." For too long, they have received nothing in the way of an annuity. Do not forget, the spouses of enlisted members are mostly unable to forge a meaningful career due to the frequency of moves made throughout a military career.

Recommendation: Provide funding so these former spouses will have a minimal stipend to provide them the support they were unable to obtain before.

Mr. Chairman, the enlisted members of the Air Force, Air National Guard and Air Force Reserve appreciate your strong commitment to funding a quality force. The efforts of this committee to support them during the past fiscal year included pay and allowances increases and an increased focus on the quality of their lives. Once the downsizing of our forces is ended and the "fat" is eliminated, it is imperative that what remains is muscle—in weaponry, in the infrastructure to support the use of those weapons, and in the pay and benefits packages to ensure a quality force of men and women to always achieve victory. Military retirees also appreciate your efforts in maintaining the benefits that keep the faith with those who have given so much. AFSA is certain that your efforts will continue this session, and believes that AFSA's recommendations will help your deliberations. As always, AFSA is ready to assist you in matters of mutual concern.

STATEMENT OF COL. CHARLES C. PARTRIDGE, USA (RET.), LEGISLATIVE COUNSEL, NATIONAL ASSOCIATION FOR UNIFORMED SERVICES

Senator STEVENS. Our next witness is Col. Charles Partridge, legislative counsel from the National Association for Uniformed Services.

Colonel PARTRIDGE. Thank you, Mr. Chairman. I appreciate the opportunity to present our views, those of the Society of Military Widows, and most of this statement also reflects the views of the 2.6 million members of the Military Veterans Alliance.

The President's budget seriously underfunded the Defense Medical Program this year by more than $500 million. The House National Security Committee and the House Appropriations Committee restored $473 million of that as part of the $11 billion that they added into the Defense budget, and we would very much appreciate your including that in your appropriation this year.

As part of that money, we would like to see language that indicates part of it is for the Uniformed Services University of the Health Sciences. We appreciate you and other members of the committee protecting it against continuing attempts to close it, and we would like some language in there that specifically says some of this money is for that university.

We all know the Medicare trust fund is going broke, and yet there is a proposal of Medicare reimbursement or subvention for military treatment facilities that could save the Medicare trust fund $2 million for every 5,000 military retirees who are Medicare-eligible who are treated in a military treatment facility. That is $2 million for every 5,000 that we can get treated in a military treatment facility.

DOD has told HCFA that they will protect the Medicare trust fund against applying it to any military retirees who they are currently paying for, and yet we cannot get this through, and we would urge this committee's support for that.

Last, Mr. Chairman, we would like to see the Federal employees' health benefit plan as an option for military retirees. Military retirees are the only Federal employees who lose their employer's sponsored health care at age 65. This is despite recruiting promises that are made throughout the years. An example is right here.

Senator Warner has introduced S. 1651, which would provide for a demonstration project for the Federal employees' health benefit plan. We would ask this committee's support for that.

Thank you, Mr. Chairman.

PREPARED STATEMENT

Senator STEVENS. Thank you. It is nice to see you again. We have held a special hearing, as you know, on the question, and we are going to fully fund the $475 million for the subjects that you mentioned. We are also adding another $6 million to protect the Uniformed Services University of the Health Sciences.

We do not know whether it will hold up in conference, but we are doing what you ask. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF COL. CHARLES C. PARTRIDGE

Mr. Chairman and distinguished members of the Committee, the National Association for Uniformed Services and the Society of Military Widows would like to express its appreciation to you for holding these important hearings. The testimony provided here represents the collective views of our members.

The National Military/Veterans Alliance includes the Air Force Sergeants Association, the American Military Retirees Association, American Retirees Association, Korean War Veterans Association, Naval Enlisted Reserve Association, National Association for Uniformed Services, the Naval Enlisted Reserve Association, the Naval Reserve Association, the Noncommissioned Officers Association, Paralyzed Veterans of America, the Society of Military Widows, the Tragedy Assistance Program for Survivors and the Veterans of Foreign Wars. These organizations have over 2.6 million members and former members of the seven uniformed services, officer and enlisted, active duty, reserve and retired plus their families and survivors.

Surveys of military personnel and their families consistently show that medical care along with adequate pay and inflation protected retired pay and commissaries are the top concerns of the military community. In fact, with base and hospital closures and reductions in medical personnel, the increasing lack of available health care is a major concern to active and retired personnel alike.

The promise of lifetime medical care for career service members, their families and survivors is contained in law and tradition and dates back more than 100 years to 1885 when the 48th Congress provided in a War Department Appropriations Bill that, "The Medical Officer of the Army and Contract Surgeon shall, when ever practicable, attend the families of officers and soldiers free of charge."

Prior to the early 1950's the promise to provide military medical care for retired military personnel was not questioned because throughout their military careers and in retirement, medical care was provided in military treatment facilities for personnel who could use those facilities. During the early 1950's and years afterward the services used a lifetime of medical care as a recruitment and retention incentive to man the large military force required to fight the Cold War. The promise appeared reasonable and plausible since the military medical system was, in fact, keeping the promises because the numbers of retirees/family members being treated during this period were relatively small and could be accommodated.

In 1956, when there were only approximately 6.4 million beneficiaries of the Defense Department's medical system, Congress made space available medical care an entitlement for active duty dependents by the enactment of The Dependents' Medical Care Act (Public Law 84–569; June 7, 1956; 70 Stat. 250). Thus for the first time, the dependents of active duty personnel were entitled to health care at military treatment facilities (MTF's) on a space available basis. Authority was also provided to care for retirees and their dependents at these facilities (without entitlement) on a space available basis.

Also in 1956, Congress concluded that the direct care medical system was inadequate to care for the dependents of active duty personnel and enacted legislation authorizing the defense department to contract with private sources to supplement the inadequate in-house care for dependents of active duty members who due to travel distances or other reasons could not use MTF's. This was the forerunner of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) enacted by Congress to be effective in 1967.

—CHAMPUS required the Defense Department to pay 80 percent of medical costs for active duty dependents and 75 percent of the cost for retired members under age 65, and their dependents. CHAMPUS beneficiaries were required to pay the remaining balance of the cost of the medical care they received.

—It was an after the fact admission that the Defense Department had a major responsibility for these beneficiaries and were honor bound by their implied and overt recruiting and retention program promises.

Exhibit A is an extract of some of the promises made in recruiting and retention literature over the years. Despite these promises, the availability of health care continues to be a problem. Deep cuts in both military and civilian medical personnel have left military medical treatment facilities (MTF's) severely understaffed. Physicians are preparing examining rooms and performing administrative tasks which means they see fewer patients than do private sector physicians who have adequate nursing and administrative help available to them. Meantime, patients not seen in MTF's must be referred to more expensive CHAMPUS or TRICARE contractor care.

Because of dissatisfaction with the availability of military medical care, some groups are picketing hospitals and Armed Forces Recruiting Stations and Offices. This increasing dissatisfaction will sooner or later be seen in recruiting and retention rates and will ultimately affect readiness.

To correct the problem facing military medical beneficiaries today a variety of programs are needed—no single option will solve the problem of providing medical care to DOD's diverse beneficiary population. However, improving access to cost effective, top quality care while meeting wartime training and mobilization requirements can be accomplished at reasonable cost. The following steps should be taken:

(1) Improve the CHAMPUS/TRICARE program.

(2) Authorize participation in the Federal Employees Health Benefits Program (FEHBP) as an option for military beneficiaries.

(3) Authorize Medicare reimbursement (subvention) by the Health Care Financing Administration to MTF's and TRICARE Network providers for Medicare-eligible retirees.

(4) Fully implement World-Wide Mail Service Prescription Drug program.

(5) Continue the operation of the Uniformed Services Treatment Facilities Family Health Plans.

CHAMPUS/TRICARE improvements.—Today, after years of trimming and cutting, the CHAMPUS program is a disaster for beneficiaries and only remotely resembles the original program. With more people using CHAMPUS the costs increase; to reduce costs the Department of Defense (DOD) reduces the CHAMPUS reimbursement rates. These rates have already been set so low in many cases that civilian physicians won't accept more CHAMPUS patients and those they do accept are considered charity cases. Good management requires that DOD exert pressures on prices to control costs; however, the current system is hurting the beneficiaries; cost reductions have gone too far and should be revised. See Exhibit B showing erosion of the MTF's and CHAMPUS benefit.

Standard CHAMPUS/TRICARE for retirees currently has a $7,500 Catastrophic Cap applicable to the CHAMPUS allowable amount only. The current cap for active duty families is $1,000; for retirees and their families who are enrolled in TRICARE-Prime the cap is $3,000. We believe that the cap should be no more than $3,000 for all retirees.

Beneficiaries who elect to use TRICARE Standard or Extra should not be required to obtain non-availability statements (NAS). The TRICARE program was advertised as a triple option program (HMO, PPO, fee-for-service). Individuals willing to pay the higher co-pays and deductibles should be allowed to choose his/her provider. The practice of forcing these beneficiaries to obtain NAS from the MTF, and even worse the TRICARE contract network, should be halted.

Even those enrolled will from time-to-time seek care outside of the network. Those individuals enrolled in TRICARE-Prime should be allowed to choose a point-of-service option at reasonable cost. The current cost requiring a $300 individual/$600 family deductible and 50 percent co-pays is outrageous. The point-of-service option for TRICARE-Prime enrollees should be the TRICARE Standard co-pays and deductibles. This, coupled with the enrollment fee and high co-pays and deductibles should discourage frivolous use of out-of-network providers while allowing beneficiaries the option of choosing their own provider when necessary if they are willing to pay a reasonable price.

Federal Employees Health Benefits Program (FEHBP).—[The views expressed regarding FEHBP do not reflect reviews of the Air Force Sergeants Assn. and Non Commissioned Officers Assn]. Military beneficiaries should be authorized to participate in the Federal Employees Health Benefits Program. Senator John Warner and Rep. Jim Moran have introduced bills (S. 1651 and H.R. 3012) that would allow Medicare-eligible retirees to participate in FEHBP. We strongly urge this committee to support this legislation. Military retirees are the only Federal employees who are dropped from their employer provided health care system at age 65. Although eligible for care in MTF's on a space available basis, with base closures and medical personnel reductions, there is very little space available. In fact, fewer than 30 percent of Medicare-eligibles receive care in MTF's. Of those who do obtain care often it is simply prescription drugs. Many do not live near a military base and therefore have no benefit. These retirees rightly feel abandoned by the military. Authorizing FEHBP as an option for these beneficiaries, while not fully providing the promised benefit, would provide a practical, badly needed health care option to these individuals.

The Warner and Moran bills complement the TRICARE system—they do not replace it, but provide a benefit which DOD otherwise has not adequately provided. The bill does not address other retirees (non-Medicare eligible) who do not have access to MTF's or TRICARE-Prime. We urge the committee to support extending the option of FEHBP enrollment to these beneficiaries as well. See additional comments at Exhibit C.

Medicare reimbursement (subvention).—The promise of lifetime medical care in exchange for a career of military service has been proven and acknowledged. Despite this, military retirees, their families and survivors are the only Federal employees who lose their entitlement to medical care from their employer at age 65 upon becoming eligible for Medicare. This is age discrimination on a huge scale which disenfranchises hundreds of thousands of retired veterans and their families.

Retirees especially resent the fact that after earning what they thought was free lifetime medical care by a military career of 20 to 35 years they are now being turned away from that care. They cannot use a military hospital with Medicare paying part of the costs even though they paid mandatory Medicare payroll deductions from their active duty military pay since January 1, 1957. The ultimate irony is that the MTF's bill their Medicare supplemental insurance plan but not the basic Medicare benefit.

Last summer, Dr. Joseph, ASD(HA) and Dr. Bruce Vladick, Director, HCFA, agreed to conduct a joint DOD/HCFA HMO Medicare Demonstration Project and they worked out a method that would remove congressional budgetary restrictions (PAYGO) to conducting the test. Unfortunately, there were perceived legal restrictions which prevented these agencies from conducting the test. Senator Phil Gramm has introduced S. 1487 which would provide the authority to start the test and solve the PAYGO problem. In the House 256 members show their support for Medicare reimbursement to military treatment facilities by cosponsoring H.R. 580, introduced by Rep. Joel Hefley. Rep. Hefley has also introduced H.R. 3142. Senator Dole and Rep. J.C. Watts have introduced less comprehensive bills (S. 1639 and H.R. 3151).

We urge this Congress to quickly enact Medicare reimbursement legislation so that the test can begin. We must provide greater access for Medicare-eligible beneficiaries to military medical treatment facilities to honor the promises made. Further, military medical readiness for wartime depends on military medical personnel having access to a full range of patients of all ages—pediatrics to geriatrics.

Over the past two decades the Congress and various Administrations have expressed interest in requiring the Health Care Financing Administration (HCFA) which administers the Medicare Trust Fund to reimburse the military treatment facilities for care given to Medicare-eligible beneficiaries. (See Exhibit D). Never-theless, despite strong support, this unresolved issue has taken more time than the Manhattan Project which developed the world's first atomic bomb. Military retirees are outraged at this long delay in resolving what they see as a simple problem.

World-Wide Mail Service Prescription Drug Program.—We believe that a mail service prescription drug program can save the Defense Department huge sums while improving the benefit for military beneficiaries. However, the charges for using this service should be the same for retirees and their families as it is for active duty families.

Uniformed Services Treatment Facilities.—The Uniformed Services Treatment Facilities (USTF's) operate the Uniformed Services Family Health Plan (USFHP) which is the only DOD plan that does not discriminate against Medicare-eligible beneficiaries, but is open to all military beneficiaries on an equal basis. The USTF's are fully at risk for enrolled beneficiaries. In fiscal year 1995, some 118,500 beneficiaries were enrolled.

There are 95,700 beneficiaries under age 65. The national capitation rate for this population is $1,816. The USTF rate is $1,580, thus saving DOD $236 per enrollee for a total savings of $22,585,000. During the same period the USTF's enrolled 22,800 individuals age 65 and older. The USTF's accept capitation rates 5 percent below the Medicare rate. Savings to the government based on this rate total $6.7 million if compared to what these services would have cost through Medicare. Unfortunately, these savings for treatment of Medicare-eligibles do not accrue to the Department of Defense but to the Medicare Trust Fund. In an analysis comparing the USTF program with TRICARE a DOD requested study by Lewin-VHI found that:

(1) USTF capitation rates are 13 percent lower than Military Health Services System rates per reliant beneficiary.

(2) When compared to TRICARE, the USTF national capitation rate is 8.5 percent to 17.5 percent lower than the TRICARE-Prime capitation rate.

(3) The USTF program administration costs are 2.8 percent compared to 5.3 percent for TRICARE contractor administration costs.

Surveys indicate that beneficiaries are highly satisfied with the care they receive in the USTF's. These facilities are playing an important role as DOD downsizes, as MTF's are closed and medical personnel reductions are made.

We strongly urge this committee to continue the USTF Family Health Plan as a separate independent program. As these data indicate bringing it under the TRICARE contractor umbrella will increase costs to the government especially because the USTF's are ideally positioned to participate in Medicare Reimbursement (subvention) demonstration programs. Therefore, we urge the Congress to authorize USTF participation.

Mr. Chairman, we want to thank this committee for its strong support for the Uniformed Services University of the Health Sciences. Graduates from USUHS are professionals dedicated to the practice of military medicine. USUHS is essential to maintaining excellence in military medicine and plays a key role in Graduate Medical Education.

The Administrations Budget for fiscal year 1997 underfunds the Defense Health program by $473 million dollars. This means disenfranchisement of more lower priority beneficiaries—the oldest and most in need of care. I urge this committee to correct this short fall.

The various options outlined today can be effectively managed to provide beneficiaries a choice while controlling costs. They also provide for ongoing competition among systems which drives costs down as the various systems compete for patients.

EXHIBIT A.—LIFETIME MEDICAL CARE PROMISE

The promise of lifetime medical care is contained in law and tradition that date back more than 100 years. Military retirees thought they had earned lifetime military health care for themselves, their spouses, and survivors by their military service because it was emphasized as a recruitment and retention incentive in all of the services from the recruiting office to every level of command. For additional indisputable evidence that the free lifetime medical promise is still being made, see the following extracts from which we quote:

Marines, Life in the Marine Corps

"BENEFITS * * * These are only a few of the great extras you'll find when you join the Marine Corps. And the nice part is, should you decide to make a career of the Corps, the benefits don't stop when you retire. In addition to medical and commissary privileges, you'll receive excellent retirement pay * * *"

Air Force Pre-reenlistment Counseling Guide, Chapter 5 Medical Care, Section 5–2.f., dated 1 April 1986

"One very important point, you never lose your eligibility for treatment in military hospitals and clinics"

Air Force Guide for Retirement, Chapter 1, 1 April 1962

"Treatment Authorized. Eligible retired members will be furnished required medical and dental care."

United States Coast Guard Career Information Guide, USGPO 1991

"Retirement Most career Coast Guardsmen retire after serving between twenty and thirty years of service. Current retirement programs allow you to collect about half of your base pay at twenty years and up to three-fourths base pay at thirty years.

Retirement benefits mean more than pay too. You continue to receive free medical and dental treatment for yourself plus medical care for dependents. You also remain welcome at military commissaries, clubs and exchanges. Free space-available travel on some military flights allows retirees to travel to exotic foreign lands * * *"

Hearings On CHAMPUS and Military Health Care (Oct-Nov 1974, HASC No. 93–70, 93rd Congress)

"* * * the government has a clear moral obligation to provide medical care to retired personnel and their dependents * * * this Committee has found numerous examples of recruitment and retention literature which pledged * * * medical care for the man and his family following retirement."

Now, after the fact, retirees are being told that such care is only space available; it was never promised, and even if it was it is not, in fact, an "enforceable contract" based on a specific code of law.

As shown, lifetime medical care has been expressly promised in military recruitment and retention literature over the years since World War II. DOD must accept full responsibility for providing lifetime medical care for its retirees, regardless of age or physical condition, including those who retired after long years of service or because of medical disability.

EXHIBIT B.—EROSION OF MEDICAL CARE THROUGH MTF'S AND THE CHAMPUS PROGRAM

The authorization for continued military medical care on a space available basis with CHAMPUS as a backup was explicitly made in law and Congressional documents. Now this space available medical care is becoming even more scarce as our armed forces are reduced and military installations and military medical treatment facilities are closed. According to the CHAMPUS Handbook, published October, 1994 and BRAC documents:

States with no military medical or dental facilities (5).—Indiana, Iowa, Minnesota, Vermont and Wisconsin.

States with one small walk-in clinic (7).—Maine, Michigan, Montana, New Hampshire, Oregon, Pennsylvania and West Virginia.

States with one hospital and minimal small walk-in clinics (12).—Arkansas, Delaware, Idaho, Nevada, Nebraska, New Jersey, Ohio, Rhode Island, South Dakota, Tennessee (hospital closes in 1997), Utah and Wyoming.

Reimbursement rates falling.—The CHAMPUS benefit continues to erode—a Member of Congress shared our concerns when he said that the "CHAMPUS reimbursement process has been disappointing, and will probably get worse."

We have two real life examples—one from Frankfort, Kentucky and one from Fairfax, Virginia—that illustrate the point. The amount billed in Frankfort, KY for the hospitalization of a patient with pneumonia was $8,618.29; the CHAMPUS Diagnosis Related Group (DRG) payment was $3,439.29 (vs the Medicare DRG of $6,618.90). The bill for a patient in Fairfax, VA for orthoscopic knee surgery was $1,900; the CHAMPUS DRG for the procedure was $832.17.

Benefit shrinking.—The story in Fairfax illustrates another point about where CHAMPUS is headed. When the patient, a military retiree under the age of 65, submitted a claim to CHAMPUS for the $154 unpaid by his employer's insurance (which, according to the 1994 CHAMPUS Handbook, was permitted since CHAMPUS should have paid any shortfall up to their allowable amount) he was told that CHAMPUS did not pay anything because the CHAMPUS allowable was already paid by the primary (current employer's) insurer. It appears that someone within DOD has decided CHAMPUS is now a "benefits less benefits" program, in insurance industry terms. Unfortunately, this implies that to get the most cost efficient care, CHAMPUS beneficiaries should drop all other primary coverages and spend government dollars first. It also relegates CHAMPUS beneficiaries to second class citizens when obtaining quality health care.

Rules changing.—An article in the March 11, 1996 Army Times further highlights some of the problems facing military retirees using CHAMPUS. To keep Joy Barton (spouse of a retired Air force Master Sergeant) alive costs an average of $1,452 a day according to the CHAMPUS contractor who initially processed her claims. However, a different contractor would only allow $54 a day and, even though Joy Barton passed away in November 1995, they are pursuing Sergeant Barton for $900,000 and the hospital where Joy Barton stayed for $540,000. How can such a travesty occur to a man who served his country honorably and who served with the understanding that he would be provided health care for himself and his spouse?

EXHIBIT C.—FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM (FEHBP)

The National Association for Uniformed Services (NAUS) strongly supports the FEHBP option initiative because of the cuts in military health program funding, deep cuts in military medical personnel, flaws in the TRICARE program and the erosion in quality of the CHAMPUS program. Several myths about offering FEHBP as an option are being voiced by some critics. These myths are addressed here:

Myth: Authorizing military beneficiary families and retirees to participate in FEHBP will damage medical readiness since these patients would not be treated in military hospitals and valuable physician training opportunities would be lost.

Fact: MTF's are turning away hundreds of thousands of beneficiaries because of lack of capacity to treat them. However, given a choice, most of these military families and retirees would not choose FEHBP, but elect to receive care in MTF's. MTF's will not have a shortage of a full range of patients for their graduate medical education programs and other readiness needs.

Myth: Authorizing FEHBP will result in MTF closures.

Fact: FEHBP will not force MTF closures; however, it will give options to retirees and families who have been left without military health care as a result of MTF closures. Currently, when MTF's close, retirees and their families are left with few satisfactory options. All Medicare-eligibles have left is a discount drug program. FEHBP would simply be another option for these retirees—if they want to use it. They will not be forced to do so.

Myth: FEHBP will increase costs to DOD.

Fact: FEHBP can be a cost-effective means for DOD to provide care. It is far less expensive than reopening military hospitals—which is unlikely anyway. DOD saves health care dollars now by rationing care, turning beneficiaries away from MTF's and by keeping CHAMPUS provider reimbursement rates so low that military beneficiaries are often refused treatment by doctors or, if accepted, they are considered charity cases. FEHBP does not keep DOD's promise of free lifetime medical care but offers cost effective high quality medical care and additional access for those who choose it. This is a medical equity issue—not a budget issue. Some critics say that

DOD will not pay the government's share of the FEHBP premium and the beneficiary will be forced to pay the entire fee. These critics are wrong. That is an integral requirement of the program. DOD will not be given an exception that does not apply to all other participating government entities.

Myth: FEHBP for the first time imposes a premium based plan on military beneficiaries.

Fact: The CHAMPUS program, with deductibles and co-pays currently in force, effectively violates the free care policy promise made to military personnel. TRICARE-Prime requires premiums disguised as "enrollment fees". FEHBP recognizes that reality and provides an option for those who choose it.

Myth: FEHBP will cost beneficiaries too much and will be available only to higher ranking beneficiaries creating a "haves and have nots" situation.

Fact: The FEHBP wrap around policy is an excellent supplement to Medicare. It costs less and provides more than other Medicare supplemental insurance policies. Further, it is an option no one has to take. For retirees and their families under age 65, there are FEHBP plans that cost less than CHAMPUS and some that cost more. However, most FEHBP plans offer far better catastrophic coverage, than the $7,500 CHAMPUS allowable cap. That leaves military retirees and their families exposed to tens of thousands of dollars in unexpected medical expenses.

Standard CHAMPUS is a good program if you don't get sick. If you do get sick, CHAMPUS can be a nightmare because of getting the required non-availability statements and fighting with CHAMPUS fiscal intermediaries and doctors because of slow and low payments; CHAMPUS is no bargain. In fact, only the wealthy and persistent can afford CHAMPUS if they get sick. We are not advocating that it be terminated. In fact, to the contrary, we want it kept as one of the options with the non-availability statement (NAS) removed. The CHAMPUS law also provides leverage with DOD for improving TRICARE.

Myth: The TRICARE program when fully implemented in 1997 will solve access problems for military beneficiaries.

Fact: The military managed care program has been in demonstration mode or in place since 1988. Even where fully implemented TRICARE-Prime is not available to all beneficiaries. Further, Medicare eligibles may not participate in TRICARE-Prime or CHAMPUS; they are thrown out of the DOD health care system at age 65. FEHBP provides an option for those who physically cannot travel to an MTF (and this is a critical point for the majority of our members who don't live anywhere near an MTF or TRICARE-Prime network) and for those who are "disengaged" or turned away from MTF's.

Myth: The FEHBP option will eventually result in standard CHAMPUS "going away."

Fact: We strongly support leaving the TRICARE/CHAMPUS program in place. However, DOD is systematically destroying the standard CHAMPUS program by making provider reimbursement so low physicians increasingly will not accept it, imposing more restrictions on non-availability statements and by requiring a medical necessity determination before allowing beneficiaries to use standard CHAMPUS. In addition, DOD has placed more restrictions on CHAMPUS as second payer for people who have other insurance as primary payer. Now, CHAMPUS pays only on a benefits-less-benefits basis, which means that beneficiaries will get very little help from CHAMPUS as second payer. DOD policy is destroying standard CHAMPUS not FEHBP. If standard CHAMPUS goes away, it will be DOD, not FEHBP, that causes it.

Myth: We don't need FEHBP if we can get Medicare reimbursement (subvention).

Fact: We don't have Medicare subvention yet and we need to support subvention and FEHBP. Also, Medicare subvention applies only to MTF's and TRICARE-Prime networks. Therefore, hundreds of thousands of Medicare-eligible military retirees will not be allowed to participate in subvention. Even though Senator Gramm's bill (S. 1487) has fee-for-service option in it and we are fighting for it—the outcome cannot be guaranteed because some officials in DOD and Health and Human Services do not want Medicare-eligibles to have a subvention fee-for-service option; rather, they want them enrolled in the HMO option only (as one NCO said, "They want us in the sheep pen to shear us"). This means we give up choice of physicians and hospitals. Medicare reimbursement legislation has already taken more time than the Manhattan Project!

EXHIBIT D.—MEDICARE REIMBURSEMENT (SUBVENTION)

On 23 March 1995, Dr. Stephen C. Joseph, M.D., M.P.H., Assistant Secretary of Defense (Heath Affairs) before the Subcommittee on Personnel, Committee on

Armed Services, United States Senate, made the following statement in his testimony * * *

> "With continuing reductions in military medical facilities and end-strength, our 'space available' will decline. As this occurs, there is little doubt that our Medicare-eligible patients will be forced to seek care from civilian providers under the Medicare system. First, this may turn out to be more costly for the government. Second, we believe there is a moral obligation for DOD to care for these former members of the Armed Forces and their families and survivors. Third, this older group of patients presents the wealth of clinical workload needed by our military medical personnel to maintain their skills for readiness missions."

Over the past years Congress has expressed interest in requiring the Department of Health and Human Services and Health Care Financing Administration (HCFA) which administers the Medicare Trust Fund to reimburse the military treatment facilities for care given to Medicare-eligible beneficiaries. The following are two recent examples:

Sec. 726, Fiscal Year 1993 National Defense Authorization Act (Public Law 102–484): "It is the sense of Congress that—

(1) members and former members of the uniformed services, and their dependents and survivors, should have access to health care under the health care delivery system of the uniformed services regardless of the age or health care status of the person seeking the health care;

(2) such health care delivery system should include a comprehensive managed care plan;

(3) the comprehensive managed care plan should involve medical personnel of the uniformed services (including reserve component personnel), civilian health care professionals of the executive agency of such uniformed services, medical treatment facilities of the uniformed services, contract health care personnel, and the medicare system;

(4) the Secretary of Defense, the Secretary of Health and Human Services, and the Secretary of Transportation should continue to provide active duty personnel of the uniformed services with free care in medical treatment facilities of the uniformed services and to provide the other personnel referred to in paragraph (1) with health care at reasonable cost to the recipient of the care; and

(5) the Secretaries referred to in paragraph (4) should examine additional health care options for the personnel referred to in paragraph (1) including, in the case of persons eligible for medicare under title XVII of the Social Security Act, options providing for—

(A) the reimbursement of the Department of Defense by the Secretary of Health and Human Services for health care services provided such personnel at medical treatment facilities of the Department of Defense; and

(B) the sharing of the payment of the cost of contract health care by the Department of Defense and the Department of Health and Human Services, with one such department being the primary payer of such costs and the other such department being the secondary payer of such costs."

STATEMENT OF SYDNEY T. HICKEY, ASSOCIATE DIRECTOR, GOVERNMENT RELATIONS, NATIONAL MILITARY FAMILY ASSOCIATION [NMFA]

Senator STEVENS. Ms. Hickey, associate director of Government relations for the National Military Family Association.

Ms. HICKEY. Mr. Chairman, the National Military Family Association is most grateful to you and this subcommittee for your strong support of military members and their families, and we appreciate this opportunity to express our views.

This afternoon, I will highlight three issues from our submitted written testimony. As the Air Force Sergeants Association said, the education of children is of primary importance to military families. As a matter of fact, many decisions to relocate with the service member are based solely on the quality of education at the new duty station.

As a result, we again reluctantly ask that you support supplemental impact aid funding in the Department of Defense budget until such time as the funding in the Department of Education's budget reaches close to the $728 million level.

The second issue is that of the military family's pocketbook. NMFA strongly supports the requested 3 percent active duty pay raise. We are concerned, however, with the increasing costs of each permanent change of station move. These allowances have not been raised in several years.

An unknown number, and from anecdotal sources there is evidence that might be quite a high number, incur additional unreimbursed expenses because they no longer even bother with the time-consuming, tedious, and financially unrewarding process of filing damage claims.

NMFA is, therefore, extremely supportive of the initiatives in the House which address PCS costs, and of the provision included in last week's authorization act allowing DOD to commence pilot projects intended to improve the way military families' household goods are moved.

We understand the provisions in the House authorization bill could either stop or significantly delay one or more of the planned pilots.

Reports of damaged and lost household goods, delayed shipments, and inexperienced packers are not new complaints. Military families should not have to put up with this type of shoddy service, but they have been doing so for years.

However, what is now happening is intolerable. Families report that packers are showing up in their homes obviously under the influence of intoxicants. Some use abusive language. Some are of such questionable character that families remove their children from the home during the packing process. Something must be done to rectify this situation as soon as possible.

NMFA does not believe that delaying the planned pilot programs is in any way in the best interests of military families.

Our written testimony outlines many of the problems encountered by military families as the implication of TRICARE sweeps the country. Nonetheless, NMFA believes that TRICARE Prime can work, and work well, when these problems are resolved and when the program is supported by a relatively large military hospital.

Our concern is for active duty families and CHAMPUS-eligible retirees who either do not have access to a military hospital or whose military medical facility is extremely limited in resources. These families may routinely have to seek specialty care from providers who are not in the Prime network and face 35 to 40 percent copayments, or will be required to drive several hours to receive this care. In many cases these families will not even be offered enrollment in Prime. This is not, Mr. Chairman, a uniform benefit.

The most egregious part, of course, of TRICARE is a lockout of the oldest and likely the most sick part of our population, the over-64 dual military Medicare eligibles. In 1992, NMFA offered a solution to the inadequacies of the military health care system, the option for enrollment in the Federal Employees' Health Benefits Program. We are pleased to note that legislation has been introduced in both bodies that would allow at least the lockout population this option.

PREPARED STATEMENT

During floor deliberations on the House version of the Fiscal Year 1997 Defense Appropriation Act, the chairman of the House National Security Appropriations Subcommittee promised to consider a demonstration of the FEHBP option during conference. We strongly urge you, Mr. Chairman, to give that your fullest consideration.

Thank you.

Senator STEVENS. Thank you very much. We will be glad to take a good look at it. I will have to study that.

Ms. HICKEY. Thank you, sir.

[The statement follows:]

PREPARED STATEMENT OF SYDNEY T. HICKEY

The National Military Family Association (NMFA) is a nonprofit, predominantly volunteer organization with membership from the seven uniformed services, active duty, retired, reserve component and their family members and survivors. NMFA is the only national organization whose sole focus is the military family and whose goal is to influence the development and implementation of policies which will improve the lives of those family members.

Mister Chairman and members of the Subcommittee, NMFA is extremely grateful for the support you provided in the Fiscal Year 1996 National Defense Appropriations Act for military members and their families. Indeed last year was "a very good year" for military families. Congress significantly increased the requested raise in Basic Allowance for Quarters (BAQ); granted "grandfathering" of Variable Housing Allowances (VHA) at current duty stations; increased funding for Family Advocacy and the New Parent Support Program; moved the retiree COLA date to 1 April; gave significant new authority to aid the needed construction and renovation of family and single servicemember housing; increased the occasions for eligibility for Family Separation pay; added supplemental funding for military students in Impact Aid districts; allowed E–6's assigned to ships or to inadequate barracks/dormitories to elect to receive BAQ and VHA; provided authority for an income protection insurance plan for mobilized reservists; and provided a dental insurance plan for selected reservists; among other important new initiatives for members and their families. NMFA thanks you on behalf of the uniformed service families we serve.

WHERE ARE WE TODAY?

In spite of these positive quality of life initiatives, NMFA is concerned with repeated and widespread reports to us during the past year of an apparent change in attitude by military family members toward their military community. Spouse Clubs, volunteer agencies, workshop providers, and professionals who work with military families have all reported what appears to be a significant decline in commitment to the military community. For decades the quality of life at installations has been enriched by the dedication and involvement of military spouses in their communities. The military establishment has responded by offering information workshops and courses to enhance the knowledge and effectiveness of these volunteers.

The increase in the number of military spouses who are working either full or part time has had the same affect on the military community as it has on the greater civilian community in which most live. However, this growth of working spouses did not just occur last year, but has been a progressive trend over several years. This trend has obviously affected the number of volunteer hours that family members are able to give, but not their commitment to their community. Certainly the military community continues to reap the benefits of many dedicated volunteers who do work to improve the quality of life in their communities.

What has been reported to NMFA, particularly in this last year, is apathy—an unwillingness to "get involved" in the community. When queried as to the reasons why, both family members and professionals respond with a variety of answers, but they all refer to the time the member is not spending with his/her family. It is not just time away from home on training assignments or other missions, it is the increasing amount of time spent at work even when in the home area. Family members and sponsors speak of 11 and 12 hour days and 6 and 7 day weeks. A typical comment: "We've drawdown, but the work load has increased!"

NMFA cannot be certain that the frequent reports of apathy are directly tied to the added time away from home, but the words of family members themselves seem to point to this conclusion. If family concerns are the most frequently cited reason for a member deciding not to make the military a career, the current high retention rates may not be an accurate predictor of what is to come.

NMFA supports careful monitoring of the effects of increased time away from home on both retention and the morale of servicemembers and their families.

COMPENSATION

Active Duty

The budget request asks for a 3 percent active duty pay raise, but no additional increase in the BAQ allowance. Since housing is reported as the first or second concern of military families, it would appear prudent to continue to fund a BAQ "buy back" until the allowance equals the 65 percent of costs which was originally intended by Congress. Continuing to base the VHA on the self-reported housing costs of military members will continue to place lower income military families in undesirable neighborhoods at significant distances from the installations where they work. A VHA floor, determined by an independent source, should be established to protect these families.

NMFA continues to hear from families assigned to high cost areas. Many families are making the decision not to accompany the servicemember to these areas. The CONUS COLA has enabled some families to stay together; but others, whose new duty station is just below the qualifying level, must still make the decision to stay behind. Authority exists to pay the CONUS COLA in areas that are 108 percent above the national median, but budget requests are only for those areas 109 percent or more above the median.

NMFA supports continuing the "buy back" of BAQ, and adequate funding of the VHA for junior ranking families. We also request funding of the CONUS COLA at the authorized level.

Retiree

The promise of inflation protection for military retired pay is always an important issue. It is even more important today as retirees are seeing the promise of free medical care for life disappear. The budget request asks for a full Cost of Living Allowance (COLA) to be paid on January 1, 1997, and each year through 2002. This inflation protection is equally as important to survivors. If the retired member's pay check does not keep up with inflation then neither do the Survivor Benefit Plan payments!

NMFA supports full funding of retiree/survivor COLA's and that they be payable on 1 January of each year.

INDIRECT COMPENSATION

Relocation Services

Congress mandated Relocation Services in 1989. These services are specifically designed to assist active duty families as they move from duty station to duty station. The Congressional mandate was in response to repeated requests from military families for assistance at this rather traumatic time in their lives. When DOD was moving Sgt. Jones from the barracks at one duty station to the barracks at the next, the need for extensive relocation services did not exist. The shift to a principally married force created a critical need for information on housing, schools, medical care, recreational activities and employment opportunities for spouses. Making a household move is never easy—doing it every two to three years is extremely stressful. Social scientists equate the stress of a move with that of a death or divorce in the family—imagine going through those experiences every two to three years on a continuing basis!

It has taken DOD's Relocation Program several years to mature into a genuinely useful information and assistance program. NMFA believes that the new SITES 2.0 program will produce the real-time interactive assistance program families have requested.

Transition Program

As many members of this Subcommittee are aware, NMFA was the first to request a Transition Program from Congress for the duration of the drawdown. Without doubt, Congressional interest and direction to DOD has enabled the Department to do the drawdown "right." Additionally, it is the first time a drawdown of this type has been accomplished in such an orderly and fair manner. NMFA, the families we served, and those we continue to serve will be forever grateful for the rapid Congressional response to our request.

We must add, however, that as close as the drawdown is to its completion it is not yet finished! In the words of the Chairman of the Joint Chiefs of Staff, General John M. Shalikashvili at NMFA's Annual meeting on November 30, 1994:

> "* * * in reductions in force of the magnitude we're going through, it's not a matter of numbers, it's a matter of people. We owe the same sort of concern, the same sort of helping hand to the very last one in this drawdown as we provided to the first one and the hundreds of thousands in between."

NMFA joins General Shali in asking that the Transition Program stay well funded until "the last"—whether separated to meet end strength limits or to achieve "force shaping" has departed active duty.

Congress mandated certain portions of the Transition Program be made permanent, primarily those designed to assist the departing service family in locating employment in the civilian sector and ensuring that they were fully aware of their eligibility for certain benefits. Other aspects of the Program, such as temporary eligibility for military health care, commissary and exchange privileges, and the separation incentive programs are to be terminated by 1999.

NMFA strongly supports the Relocation Program for active duty families. We also support continuation of the full Transition Program "until the last person has separated" and an adequate level of funding for the permanent authority consistent with its benefits to DOD and the Nation.

Reengineering Household Goods Moves

NMFA was extremely gratified with the Congressional support shown for initiatives to improve the movement of the household goods of military members and their families in the Conference Report for the Fiscal Year 1996 Defense Authorization Act. NMFA has been briefed by both the Military Traffic Management Command (MTMC) and the Army on their respective pilot programs to try alternatives to the current cumbersome and costly (to military families) program.

Since the aim of a pilot program is to try new ideas and evaluate the results, NMFA is certainly in no position at this time to firmly support the aspects of either pilot program. However, from the briefings we have received, we do believe that both planned pilots have the potential to significantly alleviate the current unacceptable practices being forced upon military families.

Complaints about damaged and lost household goods and the tedious, lengthy and financially unrewarding claims process are not new. The numbers of such complaints are simply escalating. NMFA is particularly disturbed about complaints regarding the quality of personnel sent into members homes to pack their household goods. NMFA has receive reports of packers who arrive obviously under the influence of intoxicants, who use abusive language and, in some cases, who appear to be of such questionable character that families remove their children from the home while they are present. We even have a report of a packer who relieved himself in the family's bathtub!

NMFA STRONGLY supports efforts to improve as rapidly as possible the quality of service provided during household goods moves. We firmly believe that implementation of the pilot programs as soon as possible is a giant step in this direction.

Commissaries

NMFA is aware of the proposal to make the Defense Commissary Agency (DeCA) a Performance Based Organization (PBO). It has been stated that as a PBO DeCA could function more like industry regarding contracts, procurement and personnel actions. The results are to be a more streamlined operation that would save tax dollars (i.e. lower the appropriated funding level) and increase, or at a minimum, maintain current benefits to military families. However, the details of how this would be done are not yet known.

NMFA's sole priority is to protect the savings DeCA produces for military families. NMFA will fully support proposals that fully protect these savings.

Youth Services

The Fiscal Year 1996 Defense Authorization Act made the youth sponsorship program mandatory. NMFA is extremely supportive of this initiative since we believe it may significantly ameliorate the increase in youth violence on military installations. Both installation commanders and military families have expressed strong concerns over this issue. As military juniors will tell you, the most difficult moves they made were in the early summertime during their pre-teen and teenage years. The little folk are out of the house and making new friends before the moving van arrives, but for the older children it is frequently a lonely summer until school starts and immersion in the new community begins. We believe a strong youth sponsorship program will help these young people become involved more easily in their new community. We also believe, given the opportunity, military youth would be even more effective sponsors than their parents! Since matching these children by age is more critical than it is for an adult sponsorship program, NMFA envisions that the program would be run by Youth Services or through Family Centers rather than being unit based as are adult sponsorship programs.

NMFA requests a small amount of funding be designated solely for the youth sponsorship program.

IMPACT AID

NMFA reluctantly is forced again to plead for supplemental DOD funding for this program. As this Subcommittee is well aware, NMFA has never advocated funding the costs of Impact Aid for military children out of the DOD budget. We firmly believe that when placed in competition for scarce defense dollars for readiness, training, personnel benefits and force modernization, Impact Aid funding would fare no better in the DOD budget than it has in the Department of Education budget! It also seems senseless to set up two or three bureaucracies to act as pay-masters for one program. Native American children and low rent housing children also qualify for Impact Aid and the funds for them must be administered by some agency.

The 1995–96 school year has produced financial disasters in many Impact Aid districts, some of which will not be fully apparent for years. The appropriations for the Impact Aid program was subject to numerous Continuing Resolutions which also reduced the amount of monies that flowed to these school districts. Since Impact Aid is not a forward funded program, school districts operated extremely short of cash and with no idea of how to budget for the next school year. Many districts were forced to spend reserve funds, normally used for construction and major renovations. Some even had to cut staff and curtail programs. Such a situation is unfair to our children! It is also unfair to the civilian communities in which military installations are located.

NMFA requests your advocacy for military children within the total appropriations process. Also, we must again request DOD supplemental funding, particularly for school districts most heavily impacted with military children, until a way can be found to encourage advocacy on the part of DoEd and others in the Administration.

HEALTH CARE

Dental Care

Perhaps one of the most popular programs Congress authorized for military families was the Active Duty Dependents Dental Plan, now called Tricare Family Member Dental Plan. On February 1, 1996, a new contractor, United Concordia Companies, Inc. (UCCI), took over the Plan. NMFA is aware that the transition to a new contractor can be a somewhat tumultuous time. We are therefore somewhat hesitant to assume current problems are of a permanent nature. However, the volume of calls and letters to the NMFA office require that we apprise the Subcommittee of the numerous complaints that we have received. Many dental providers tell us that not only is the payment rate significantly reduced under the new contractor, but that the payment schedules are below what the DOD contract required. Providers have also complained of extremely slow turn around times on claims and needless returns of claims for information already provided. NMFA hastens to add that we are not an advocate for providers, but we are concerned that provider dissatisfaction will lead to fewer options for military families.

The main concern of military families is the inability to find a UCCI provider. As of May of 1996 UCCI stated that it had 38,000 participating providers. When the previous contract was terminated the contractor had over 110,000 providers. Families also have expressed concern about the lack of accurate information regarding who is and who is not a provider. When families are not able to use a participating provider their costs for dental care soar. Some families have reported information briefings by UCCI that have actually turned confrontational!

NMFA is aware that in some areas of the country the change of contractor has apparently been almost seamless and military families remain very well satisfied with the program. However, NMFA is quite concerned that what has been essentially an extremely popular program nationwide is now sometimes viewed, in the words of one family member, as a "rip off." Since enrollment is required for a two year period, significant levels of dissatisfaction may not be apparent for some time to come. NMFA hopes that many of these problems are simply part of a normal transition process.

NMFA asks this Subcommittee to be vigilant with us to ensure that military families continue to receive the same level of service and satisfaction that has been a hallmark of the program since its inception.

Tricare

As implementation of the Tricare Program marches eastward across the country, its pluses and minuses are becoming evident to military families. The most glaring defect in the Program is the shut out of the over age 64 dual military-Medicare eligible beneficiaries. However, other defects in the design of the program are also evident.

PORTABILITY AND RECIPROCITY

Tricare Prime is not portable from one Region to another. Active duty families must disenroll from their current Region when they accompany their sponsor on a permanent change of station (PCS) to a duty assignment in another Region. They cannot enroll in the new Region until they arrive at the new duty station. Families are therefore subject to the large deductibles and copayments of Tricare Standard while in transit or on leave. NMFA is extremely concerned that some families are unaware of the need to disenroll when they PCS and this summer many may end up paying the even higher deductibles and copayments required under the Point of Service option in Prime.

Not only do military families move when they PCS, but they have a tendency to be relatively mobile at all times. Since few reside near grandparents, lengthy summer visits are not unusual. Often families with pre-school age children spend several months during a long deployment visiting relatives. These families are essentially precluded from Prime enrollment since they may well be "out of their Region" for months at a time.

Retirees who have dependents in a Region other than the one in which they live (e.g. college student dependents or dependent children from a prior marriage) must often pay TWO family enrollment fees just to have their entire family covered. It seems strange that a program designed for a known mobile population does not have portability and reciprocity built into it.

UNKNOWN COSTS

The beneficiary booklet produced by Foundation Health Services for the states of California and Hawaii clearly states that a Prime enrollee can be charged up to 115 percent of Tricare Standard rates by a provider even if they are referred to that provider by their Primary Care Manager or Health Care Finder. (attachment 1) NMFA has recently been informed that the Tricare briefings in Regions 3 and 4 begin with that disclaimer. Apparently Prime enrollees must also continue to purchase CHAMPUS supplemental insurance to protect against such an occurrence. The program gets more expensive by the day!

ACCESS STANDARDS

Tricare Prime has definitive access standards. The standards as listed in the Tricare Guidelines are: 24 hours for an appointment for an acute condition; one week for a routine visit; four weeks for a well visit or a speciality appointment; drive time for primary care of no longer than 30 minutes; and for speciality care a drive time of no longer than one hour. However, many enrolled beneficiaries are being referred for procedures and treatment to military hospitals (not the two designated as Specialized Treatment Facilities) that are a two or more hour drive from their homes. Specialty appointments are often not granted for 6 or more weeks in some Regions. Military family members report having the same problem accessing the Tricare Service Center telephones as they did the central appointments desk under the old system.

UNIFORM BENEFIT

When not enough room is available to enroll all area beneficiaries at the military hospital, some are forced into the civilian part of Prime. These beneficiaries must pay a $12 copayment for appointments. While NMFA has received few complaints from retirees and their families, active duty families forced into the civilian sector do not view the program as having a uniform benefit. Remotely assigned active duty families are unable to enroll in Prime and certainly do not view the program as a uniform benefit. As more military hospitals and clinics are closed due to the Base Realignment and Closure process, the number of these families will escalate. The proposed DOD test of Prime for remotely located families in Region 11 may not meet the Prime access standards for specialty care. Is Prime really an option when you may have to drive over one hundred miles to find a specialist who is in the network? Only active duty families will be offered even this limited Prime option. The under age 65 military retirees and their families will be shut out of the Program.

CHOICE

Family members who decline to enroll in Prime and choose to seek a civilian provider under Tricare Standard continue to have their choice limited by nonavailability statements. The 115 percent rule (providers may charge no more than 115 percent of the CHAMPUS allowable) further reduces choice for these families as more and more providers simply refuse to see CHAMPUS patients. Finding providers who will accept CHAMPUS assignment (providers who charge no more than CHAMPUS allows and file all the claims) is becoming an impossible task in some areas of the country.

START UP PROBLEMS

As Tricare has been implemented in each new Region, significant start up problems have occurred. In Region 11, the numbers of families who immediately desired to enroll in Prime overwhelmed the system. In Region 6, families were provided with lists of Prime physicians and made their decision to enroll and then found out the physicians were not Prime providers. So far, these families are not being allowed to disenroll without penalties. In the case of retirees, that can be the loss of the entire enrollment fee. In Region 10, families were reassigned to new civilian primary care providers even though their current providers were in the new contractor's network. In several cases the primary care providers assigned actually were in communities 2 to 3 hours distance! These of course are start up glitches and hopefully will be quickly resolved. However, families are not inclined to have confidence in a new program when such things happen.

THE SHUT OUTS

The truly devastating piece of the entire Tricare Program is the shut out of the over 64 military beneficiaries. This action affects all career military families. After all, each of them assumes they will one day be in that population group themselves. They also feel extreme guilt as they fill their prescriptions at military pharmacies staffed by volunteers from this same over 64 military beneficiary population. Volumes could be written about how the entire military family feels about this shut out, but the most eloquent expression NMFA has heard came from an 80 something military retiree. After a presentation by an NMFA staff member the retiree approached her and said: "While I am still alive I will fight to see that my wife and I have the care we were promised." With tears gathering in his eyes he continued, "But what's going to happen to her when I die, how will she get care?"

Unfortunately, most people are led to believe that Medicare Subvention (when Medicare reimburses DOD for care it provides to dual military-Medicare eligible beneficiaries) is the answer to the over 64 shut out. While NMFA fully supports Medicare Subvention, it will only assist the 25–30 percent of this eligible population who now live (or who will after BRAC closures) near a military hospital. The other 75 percent of the over 64 dual military-Medicare eligible beneficiaries will not be assisted in any way by Medicare Subvention.

MARKETING TRICARE

Unfortunately the briefings provided on the Program in most areas have been confusing and often contradictory. Therefore many families enrolled in the HMO portion of the program, Prime, are unaware of benefits such as the advice nurse or the Tricare Service Center, through which they must make needed specialty appointments. Briefings have been directed to the active duty members, who for the most part do not oversee the family's medical needs. Spouses who have attended briefings report that what they heard did not compare at all to what their sponsor had related! Retirees also feel they have not been made aware of the Program and often hear about it only through word of mouth. In most regions beneficiaries are not informed of the access standards, indeed they don't even know they exist.

Families are also extremely confused about what enrollment means and are not always aware of whether or not they are enrolled. NMFA has received numerous calls from family members stating they are "enrolled" in Tricare. Since the only enrollment option is the HMO, Tricare Prime, it often takes a lengthy conversation to convince the family member that they are still in what is essentially the standard CHAMPUS program, even though it's now called Tricare Standard, and the benefits of Prime are not available to them.

NMFA has also been informed that little if any information on the stateside Tricare Program is being disseminated overseas. As the summer PCS season arrives and many families return to the United States from foreign duty, confusion may well be the order of the day.

DOD is aware of many of these problems and is taking steps to correct them. However, it appears as if implementation of the Program is proceeding more swiftly than the corrective actions.

THE POSITIVES

Most military families able to enroll in Prime at a military hospital are reporting significant increases in their access to care. In many cases those that have chosen or been forced to enroll in the civilian portion of Tricare Prime are also expressing satisfaction, even though a $12 per appointment fee is required. While some retirees were not pleased with having to pay $460 enrollment fees, the action taken in the fiscal year 1996 Defense Authorization act allowing payments to be made quarterly without additional administrative fees was most welcome.

In Region 11, where many of the start up glitches appear to have been overcome, many military family members offer rave reviews. They report easy access and are grateful for the preventative care that is offered on a routine basis. Those enrolled in the civilian part of prime seem to be particularly pleased with the service they receive and are enjoying a continuity of care they have never experienced.

ALTERNATIVES TO TRICARE

NMFA is basically supportive of the Prime portion of Tricare when it is implemented with an adequate network of providers and if all military beneficiaries are offered enrollment. It very closely resembles the Military Health Plan NMFA envisioned in 1992 when we proposed our Health Benefits Program for Military Beneficiaries. NMFA's proposal, however, would offer all beneficiaries the option of enrolling in the Federal Employees Health Benefits Program (FEHBP). We continue to support this proposal as we believe it would be a solution for remotely assigned active duty families and retirees who cannot enroll in Prime. It would also offer choice, which Tricare Standard does not do because of non availability statements and the cap on CHAMPUS allowable payments. NMFA believes the total premium for a basic FEHBP plan should be covered by DOD for active duty families. Retirees and their families should have the same cost sharing of their premiums as all other federal retirees.

It is imperative, however, that the needs of the dual military-Medicare eligible population be addressed immediately! For this reason, NMFA joins the rest of The Military Coalition in strongly supporting H.R. 3012, introduced in the House of Representatives on March 5 by Congressman Jim Moran (VA) and S. 1651, introduced in the Senate by Senator John Warner (VA) on March 29. Both bills would allow dual military-Medicare eligible beneficiaries the option of joining the FEHBP. The premiums these beneficiaries would pay under almost any plan within FEHBP would be less than most are now paying for a Medicare Supplement; and their coverage, including coverage for prescription drugs, would be far superior to what they now have under Medicare and their supplement

How else can the concerns of that 80 year old World War II retiree be addressed? How else can he be assured that his wife will receive adequate and affordable care when he dies?

CONCLUSION

Military families are very grateful for the quality of life improvements included in last year's authorization and appropriations acts. They anxiously await implementation of the new housing initiatives so the shortfall in adequate government housing will be more quickly addressed. They remain concerned about their ability to afford adequate housing in the civilian sector. Servicemembers' time away from their families is taking an as yet unknown toll on family life, community life and retention decisions. Families, even those very satisfied with their current choice of Tricare Prime, are extremely concerned about their future health care.

ATTACHMENT 1.—TRICARE—CALIFORNIA-HAWAII

CLAIMS, SUBMISSIONS AND BALANCE BILLING

As a TRICARE member, on occasion you may be referred to a non-network provider such as a laboratory or x-ray unit inside or outside of your Primary Care Manager's office, or you may receive services from a non-network provider at a hospital. After the start of the TRICARE Prime program, a change in Federal law effective November 1, 1993, allows some non-network providers to bill a TRICARE Prime member for additional amounts over what CHAMPUS pays.

TRICARE Prime members may be billed by a non-network provider even if they are referred by the Health Care Finder (HCF) or Primary Care Manager (PCM). These provider types include: anesthesiologists, pathologists, pharmacies, ambulance services, independent labs, mobile x-ray companies, screening mammography centers, durable medical equipment, and medical supply companies.

If you are a TRICARE Prime member and are trying to determine if "balance billing" may occur, you should ask the following questions when being referred by your PCM or authorized by your HCF for any specialty care, including inpatient:

1. Is the provider part of the TRICARE network?
2. Are the hospital and all ancillary providers (such as anesthesiology, pathology, laboratory) network providers?
3. If the provider is non-network, does he or she accept assignment?

A provider who accepts assignment will file the claim for the member, receive payment directly from the claims payer and not "balance bill" the beneficiary.

STATEMENT OF JANE REESE COULBOURNE, VICE PRESIDENT, NATIONAL BREAST CANCER COALITION

Senator STEVENS. Now we will turn to Jane Reese Coulbourne, vice president of the National Breast Cancer Coalition.

Ms. COULBOURNE. Thank you, Mr. Chairman. I am Jane Reese Coulbourne, vice president of the National Breast Cancer Coalition, and an advanced breast cancer patient who is alive today thanks to an innovative research clinical trial.

On behalf of the National Breast Cancer Coalition and the 2.6 million women who are now living with breast cancer, I thank you for your past support of the Department of Army peer reviewed Breast Cancer Research Program, and urge your continued support of this important program.

The National Breast Cancer Coalition believes that this program is vital to the eradication of breast cancer. The NBCC is a grassroots advocacy organization dedicated to the eradication of the breast cancer epidemic. We are made up of 350 member organizations and more than 40,000 individual women, families, friends, and physicians.

Despite our best efforts and your leadership, breast cancer is still the most common form of cancer in women. Every 3 minutes, another woman is diagnosed and every 11 minutes another woman dies of breast cancer.

We still do not know the cause or have a cure for this dread disease. Our work together is essential and must continue. I appear before you today urging you to appropriate $150 million to the Department of Defense to continue its mission against breast cancer. I am pleased to report, however, that I do not make this request alone. In addition to the tens of thousands of NBCC breast cancer advocates across the country who support $150 million for this groundbreaking Breast Cancer Research Program, 54 of your colleagues in the Senate signed a letter asking you to support this program at that funding level.

The outstanding quality and efficiency of this important peer-reviewed breast cancer research have won the support of scientists, breast cancer advocates, and a majority of the Members of the Senate.

It is especially important to support the DOD peer-reviewed Breast Cancer Research Program with renewed commitment this year. Over the past 2 years, there have been incredible discoveries at a very rapid rate that offer fascinating insights into the biology of breast cancer, such as the isolation of breast cancer susceptibility genes and discoveries about the basic mechanisms of cancer cells. These discoveries have brought into sharp focus the areas of research that hold promise and will build on the knowledge investment that we have already made.

These recent discoveries lead to a renewed vision for the DOD peer-reviewed Breast Cancer Research Program, especially the innovative developmental and exploratory awards grants, called ideas grants. Therefore, we have devoted a majority of the DOD funds to these types of grants.

Idea grants are uniquely designed to dramatically advance our knowledge in areas which offer the greatest potential, and these types of grants are funded only through the DOD program. Idea grants are precisely the types of grants that cannot receive funding through more traditional programs such as the National Institutes of Health and academic research programs.

In addition, the DOD program devoted a significant amount of funding to translational research, or research that takes our basic knowledge about breast cancer and translates it into practical medical treatment and training.

So thank you again, Senator Stevens, for the opportunity to appear before you in the subcommittee today. The coalition and its members are dedicated to working with you to ensure the continuation of funding for this program at a level that allows its groundbreaking research to forge ahead.

Investment in the DOD peer-reviewed Breast Cancer Research Program gives hope to the 2.6 million women living with breast cancer.

Senator STEVENS. It is going to be difficult. This item is not included in the authorization bill, as you know. We have $100 million in the current bill. I have been approached by a series of organizations that represent men who are concerned with prostate cancer, pointing out the difference in the level of funding, which is $14 million this year on prostate cancer.

PREPARED STATEMENT

We will include the moneys your organization requested and the 54 Senators, but I would point out that if the bill is vetoed it will remain at $100 million, because we will operate under a continuing resolution in the next year, but we will accommodate your request for this year.

Ms. COULBOURNE. Thank you.

[The statement follows:]

PREPARED STATEMENT OF JANE REESE COULBOURNE

Thank you, Mr. Chairman and members of the Appropriations Subcommittee on Defense. I am Jane Reese Coulbourne, Vice President of the National Breast Cancer Coalition and a Stage III breast cancer survivor.

On behalf of the National Breast Cancer Coalition and the 2.6 million women who are now living with breast cancer, I thank you for your past support of the Department of the Army peer-reviewed breast cancer research program and I urge your continued support of this important program.

The National Breast Cancer Coalition believes that this program is vital to the eradication of breast cancer. The NBCC is a grassroots advocacy organization dedicated to the eradication of the breast cancer epidemic. We are made up of 350 member organizations and more than 40,000 individual women, their families, friends and physicians. Our national network extends to every state where we have state coordinators who respond to our calls to action by activating phone and fax trees.

Despite our best efforts and your leadership, breast cancer is still the most common form of cancer in women; every three minutes another woman is diagnosed and every 11 minutes another woman dies of breast cancer. We still do not know the cause or have a cure for this dread disease. Our work together is essential and must continue. I appear before you today urging you to appropriate $150 million to the Department of Defense to continue its mission against breast cancer.

I am pleased to report however, that I do not make this request alone. In addition to the tens of thousands of NBCC breast cancer advocates across the country who support $150 million for this groundbreaking breast cancer research program, 52 of your colleagues in the Senate signed a letter asking you to support this program at that funding level also. The outstanding quality and efficiency of this important peer-reviewed breast cancer research have won the support of scientists, breast cancer advocates, and a majority of the Members of the Senate.

It is especially important to support the DOD peer-reviewed breast cancer research program with renewed commitment this year. Over the past two years, there have been incredible discoveries at a very rapid rate that offer fascinating insights into the biology of breast cancer, such as the isolation of breast cancer susceptibility genes, and discoveries about the basic mechanisms of cancer cells. These discoveries have brought into sharp focus the areas of research that hold promise and will build on the knowledge and investment we have made.

These recent discoveries lead to a renewed vision for the DOD peer-reviewed breast cancer research program, especially the Innovative Developmental and Exploratory Awards (IDEA) grants. Therefore, this year, we have devoted a majority of the DOD funds to these types of grants. IDEA grants are uniquely designed to dramatically advance our knowledge in areas which offer the greatest potential—and these types of grants are funded only through the DOD program. IDEA grants are precisely the types of grants that cannot receive funding through more traditional programs such as the National Institutes of Health, and academic research programs. In addition, the DOD program devoted a significant amount of funding to translational research—research which takes our basic knowledge about breast cancer and translates it into practical medical treatment and training.

The Coalition and its members are dedicated to working with you to ensure the continuation of funding for this program at a level that allows this groundbreaking research to forge ahead.

1996 is the fifth anniversary of the Coalition's existence, a bittersweet milestone. We will recognize this year by launching a new campaign to gain 2.6 million signatures on a petition for $2.6 million for breast cancer research by the year 2000. The Department of the Army peer-reviewed breast cancer research program is an important part of this funding initiative.

In addition, this year NBCC has created a ten-point Breast Cancer Policy Platform which we will ask all candidates for public office, in addition to those holding an elected or appointed office, to endorse. The second item on the platform is:

> The United States Congress and the President of the United States must continue support for the Department of Defense peer-reviewed breast cancer research program, under the strategies recommended by the Institute of Medicine.

In addition, breast cancer policymakers and scientists agree that the DOD peer-reviewed breast cancer research program is essential in the fight against breast cancer. In October 1993, NBCC delivered a petition with 2.6 million signatures asking for "a comprehensive plan to end the breast cancer epidemic" to the President, Hillary Rodham Clinton and Secretary Shalala in the East Room of the White House. In response, the President asked Secretary Shalala to convene a conference to develop a national action plan on breast cancer.

Out of this meeting, a National Action Plan has been developed which specifically recommends the continuation of the landmark breast cancer research program administered by the Department of Defense as part of that strategy. I quote:

> * * * continue support for the Department of Defense breast cancer research program administered by the Department of the Army under the strategy recommended by the Institute of Medicine. This program has at-

> tracted over 3,000 new proposals for breast cancer research, many from investigators who were not previously involved in breast cancer research.

In addition to the fact that the DOD program provides desperately needed, excellent quality breast cancer research, it also makes extremely efficient use of its resources. In fact, over 90 percent of the funds went directly to research grants. The federal government can truly be proud of its investment in Army breast cancer research. The overall structure of the system has streamlined the entire funding process while retaining traditional quality assurance mechanisms.

The scientists who have seen, first hand, the benefits of the DOD breast cancer research program, have issued a strong statement, that in their scientific judgement the program should continue:

> * * * we urge that this program receive ongoing funding. This program has been broadly defined such that the research performed will be of benefit not just for breast cancer, but for all cancers and other diseases.

The Army's program has not only increased current research, but has also inspired new efforts on the part of some of the nation's best and most experienced researchers who have never before been attracted to breast cancer research. This year, in response to the request for proposals, the DOD breast cancer research program received 2,217 new research proposals. 1,370 of those proposals were deemed scientifically meritorious and deserving of funding. There was not enough funding for all of the meritorious proposals that were received, only 301 of the meritorious proposals received funding.

Continuation of the Army's breast cancer research effort is important to all American women, but especially for the women who receive their health care from the military. One of every eight of these women is at risk of getting breast cancer.

Since the very beginning of this program, in 1993, Congress has stood in support of this important investment in the fight against breast cancer. The 1993 Defense Appropriations report language read:

> The Committee commends the Department of the Army for its fine management of the breast cancer research program * * *. The Committee understands that the program has had a positive effect on recruiting new scientists into the field, developing needed infrastructure, and bringing innovative proposals to the fore, and that its continuation is necessary to build on these advancements.

In the years since then, Mr Chairman, you and Mr. Murtha and this entire Committee have spoken out, both in Committee and on the floor of the U.S. House of Representatives in support of this program and have been unfailing leaders in the effort to continue this innovative investment in breast cancer research.

We ask you, the Defense Appropriations Subcommittee, to recognize the importance of what you have initiated. What you have done is set in motion an innovative and highly efficient approach to fighting the breast cancer epidemic. What you must do now is continue to support this effort by funding research that will help us win this very real and devastating war against a cruel enemy.

Thank you again for inviting me to testify and giving hope to the 2.6 million women living with breast cancer.

STATEMENT OF DENNIS M. DUGGAN, ASSISTANT DIRECTOR, NATIONAL SECURITY-FOREIGN RELATIONS COMMISSION, REPRESENTING THE AMERICAN LEGION

Senator STEVENS. Next up is Dennis Duggan, assistant director, National Security-Foreign Relations Commission.

Mr. DUGGAN. Thank you, Chairman Stevens. On behalf of the 3.1 million members of the American Legion, we salute you for allowing us the opportunity to present testimony on the fiscal year 1997 Defense budget.

The administration's current budget authority request of about $243 billion is about 6 percent less than the fiscal year 1996 Defense budget when adjusted for inflation.

We believe, I think, as do you, that the top priority in this budget should be military procurement, which should be accelerated and not further delayed. Now is the time, we believe, to budget for long-term readiness through modernization. We support high-priced items such as more C–17 airlifters, advanced submarines, the F–22 fighter, the joint strike fighter, and Army hardware.

While we support these big items, let us be reminded also, and not overlook, that there are smaller items which are every bit as essential to readiness, to include, for example, improved chemical and biological protective and monitoring equipment, a new generation of radios, improved and lighter flak vests that will actually stop bullets, and lightweight infantry pack frames, but the higher cost for procurement should not be made at the expense of further cuts in military manpower end strength.

The American Legion believes that we have reduced manpower so deeply that we no longer have the capability to fight and win two wars nearly simultaneously. Technology will not completely bridge the gap between national security goals and resources, but it will provide the force multipliers.

Second, the American Legion more than ever strongly supports the development and deployment of a national missile defense system by the year 2003. It has been our experience that there are many Americans who are completely unaware of the fact that they are protected against missile threats, especially during this period when nuclear missile proliferation is on the rise, not on the decline. We are supportive, therefore, of system deployment of any combination of ground- and sea-based defenses and space-based surveillance.

The American Legion supports the full array of proposed quality of life improvements for our military and military retiree veterans. We fully oppose, however, the privatization of military commissaries. In fact, we commend the Defense Commissary Agency for their streamlining, and other innovative initiatives. We need to retain this vital noncompensation benefit for our active and reserve components, retirees, and 100 percent disabled veterans.

Without a doubt, however, our No. 1 concern is the health care of our military retirees, dependents, and survivors. Our Medicare-eligible military retirees and dependents are being disenfranchised by the Department of Defense at a time in their lives when they can least afford it. We receive letters practically every day from military retirees and dependents citing their Government, for whom they sacrificed for so long.

Military members, as we are reminded, are the only Federal employees who take an oath to lay down their lives for their country, if necessary, and many of them have. With some 35 percent of our military hospitals closed or closing, we are having to scramble to search for health care options. We support Medicare subvention, if for no other reason than military health care is still considered quality care, and less expensive than Medicare.

We are also supportive of authorizing military retirees and their dependents the option to voluntarily enroll in the Federal employees' health care plan, particularly for those retirees who do not live near military medical facilities, and as I previously mentioned, we also urge your support, sir, for the retention of the Uniformed Services University of the Health Sciences.

Mr. Chairman, that concludes my statement.

PREPARED STATEMENT

Senator STEVENS. Thank you very much. It is nice to have your views. They are very consistent with what Senator Inouye and I have been trying to do. I am not sure we are going to be able to fund everything you ask for, but we will do our very best. Thank you for taking the time to come.

Mr. DUGGAN. Thank you, sir.

[The statement follows:]

PREPARED STATEMENT OF DENNIS M. DUGGAN

Mr. Chairman, The American Legion is pleased to appear before this Subcommittee to express its concerns about fiscal year 1997 defense appropriations. The American Legion, the nation's largest organization of wartime veterans, is fully aware of what can happen when diplomacy and deterrence fail. We strongly urge the President and the Congress to uphold their constitutional responsibilities to provide for the "common defense" of the American people in a highly uncertain world.

Although the Cold War has been won and the threats of nuclear holocaust and blitzkrieg by the Warsaw Pact are gone, instability in central and eastern Europe, saber rattling by Red China and North Korea, the continued proliferation of weapons of mass destruction, and the increase in ethnic and nationalistic wars are prompting more United States contingency operations which not only devour defense budgets but severely strain military morale and readiness. A resurgent nuclear Russia is moving toward a more aggressive foreign policy; a defiant Iraq and Iran, both of which are within close proximity to vital oil reserves in the Persian Gulf, continue to be potential threats which require monitoring. Additionally, the United States faces the challenges posed by international terrorism, fundamentalist religious movements and drug cartels, none of which operate within the basic rules of international law.

The American Legion has always adhered to the principle that our nation's armed forces must be well-manned and equipped, not to pursue war, but to preserve and protect the hard-earned peace. The American Legion strongly believes that the recent military downsizing was based more on deficit reduction than on current and foreseeable threats to the national security well-being of the American people and America's vital interests. Mr. Chairman, we are convinced that the United States is returning to the days of the "hollow forces." Once Army divisions, Navy aircraft carrier battle groups, and Air Force fighter wings are cut from the force structure, they cannot be rapidly reconstituted without the costly expenditures of time, money, and human lives. History has demonstrated that it is better to err on the side of preserving robust forces to protect America's interests.

During the past ten years, defense budgets, military manpower levels, and force structures have been slashed by over one-third. The United States Army was cut from 18 divisions to its present-day ten divisions, and the readiness capabilities of the military reached new lows, while the operational tempo of our armed forces dramatically increased.

The Administration's fiscal year 1997 defense budget request of $243 billion pales in comparison to the 1996 budget and is six percent lower after adjustment for inflation. The Joint Chiefs of Staff have called the Administration's military procurement budget totally inadequate as it further delays procurement and modernization of our aging ships, aircraft, helicopters and mechanized vehicles. The Chairman of the Joint Chiefs of Staff also warned the Administration and the Congress of dire consequences if the long plunge in procurement spending is not increased to about $60 billion by fiscal year 1998 and is further delayed to the year 2001 as proposed by the Administration.

The American Legion believes that the Bottom-Up Review provides neither the forces, lift capabilities, nor budgets to fight two nearly simultaneous major regional conflicts and win. Future defense budgets should be protected from further cuts.

QUALITY OF LIFE

Just as military manpower levels, force structures and defense budgets need to be stabilized, so must quality of life features for our service members and their families. This includes enhancements to compensations and incentives to preclude seriously degrading the All-Volunteer Force. The implementation of such personnel management initiatives to drawdown the active force to include voluntary and involuntary separations, reductions-in-force and 15 year retirements should gradually be phased out and the 20 year plus military career should be re-institutionalized as the norm. This would stabilize our fighting capabilities, experience levels, and promised careers. Annual military pay raises and military retirement cost of living allowances (COLA's) should more closely match actual inflationary levels.

ACTIVE FORCE PERSONNEL ISSUES

The American Legion is concerned that a number of influences pose significant—and often underestimated—retention and readiness risks for the remainder of the decade.

First, the speed and depth of the defense drawdown has significantly undermined one of the major historical selling features of a military career—employment security. In the history of the all-volunteer force, qualified young enlisted members and officers were actively recruited for full terms of service or full military careers, but the situation has radically changed within the past five years. Now, the only experience of military members coming to career decision points has been the repetitive message that the government which recruited them wants them to leave in large numbers.

Along with this discouraging career message to our active military forces, the government has cut funding for their working, recreation and living facilities. They have endured physical risks to their well-being and livelihood, substandard living conditions, and forfeiture of personal freedoms that most American civilians would find unacceptable. Worldwide deployments have increased significantly, and a smaller and less experienced force has had to pick up the slack—with longer work hours and increased family separations.

And throughout the drawdown years, military members have been called upon to set the example for the Nation by accepting personal financial sacrifices. Their pay raises have been capped for several years, and their health care system has been overhauled to cut costs, leaving some military families in Europe with little access to proper health care. We congratulate the Congress for their quality of life enhancements contained in the fiscal year 1996 National Defense Authorization Act. But more must be done.

Now is the time to look beyond the drawdown to the force retention needs of the future. Positive congressional action is needed now to begin overcoming past years of negative career messages.

1. *Military Pay Raises.*—Since 1982, military pay raises have lagged a cumulative 12.6 percent behind private sector pay growth, as measured by the Bureau of Labor Statistics' employment cost index (ECI). The American Legion is convinced that had force requirements remained unchanged, retention problems would have become more apparent. We believe that the military is facing the likelihood of another retention "crash". As the drawdown comes to a close in the context of a recovering economy and smaller first-term enlistments, there is a great risk of being surprised by the magnitude of continued losses even after separation incentives are terminated.

Legislation has yet to account for a "catch-up" raise for 13 years of pay caps, as military raises have been one-half percentage point below the ECI, and no legislation offers them a long-term pay comparability plan. We should not wait for a retention crisis to develop such a plan.

The American Legion believes that the fiscal year 1997 military pay raise should be no less than 3.0 percent and believes that full-comparability pay increases are highly desirable to attract and retain a quality force.

2. *Quarters Allowances/Quarters Renovation and Construction.*—Housing allowances for military members stationed in the United States consist of two components: The Basic Allowance for Quarters (BAQ) and the Variable Housing Allowance (VHA). Because it is adjusted by the same percentage as basic pay each year, the change in BAQ bears no relationship to changes in housing costs. The Congress must continue to remain attentive to not allowing BAQ rates to drop below 65 percent of national median housing costs.

The American Legion urges the Congress to annually fund the renovation of older military family quarters and to fund new quarters construction which are urgently needed.

3. *Preserving an Attractive Retirement System.*—Active members undoubtedly are disappointed by the constant attacks on the military retirement system which only exacerbates both the recruiting and retention of military members. Now that military retirement COLA equity appears to have been finally achieved, it is time to cease assaults on the military retirement system.

4. *Funding the Concurrent Receipt of Military Separation Pays and VA Disability Compensation.*—In creating Voluntary Separation Incentives (VSI) and Special Sep-

aration Bonuses (SSB), Congress included provisions in the law requiring a forfeiture of these payments in an amount equal to any veterans disability compensations received after discharge. This is a carry-over of the unfair law which has historically prohibited the concurrent receipt of both pays. VSI, SSB and involuntary separation, or severance pay, are entirely different in scope and purpose than military retirement pay. They were designed to compensate service members for lost military career opportunities and to facilitate readjustment to civilian life. They are totally unrelated to any disability a service member may have incurred during his or her service. Those who were disabled in military service will face special challenges in readjustment particularly during this drawdown period. The American Legion urges the Congress not to add to these challenges by requiring disabled veterans to continue to fund their own disability compensation by an offset from their separation or military retirement pay. We also believe that the practice of recouping separation pays, to include the amount of taxes paid, by offsetting VA disability compensation amounts should cease as the continuation of this practice serves as a deterrent for discharging, service-connected military members to even apply for disability compensation.

5. *Impact Aid for Military School Children.*—The American Legion supports a small but vital military morale-builder which is the continued Federal funding of Impact Aid to provide for the schooling of military school children. Impact Aid helps bridge the funding gap that local school districts may face educating the children of military families.

Impact Aid is built on the premise of a shared responsibility among Federal, State and local governments. Should Federal funding for Impact Aid be drastically reduced or eliminated, this would become a huge unfunded mandate and would shift a Federal responsibility to local governments who depend largely on property taxes to fund.

MILITARY RETIREE ISSUES

The American Legion believes strongly that quality of life issues for retired military members and families also are important to sustaining military readiness over the long term. If the government allows retired members' quality of life to erode over time, or if the retirement promises that induced them to serve arduous military careers are not kept, this will undoubtedly inhibit retention in the current active duty force.

Accordingly, The American Legion believes Congress and the Administration must place high priority on ensuring that these long-standing commitments are honored.

1. *Military Retired Pay COLA's.*—Service members, current and future, need the leadership of this Subcommittee to ensure the Congress remains sensitive to long-standing contracts made with generations of career military personnel. A major difficulty is the tendency of some to portray all so-called "entitlement" programs, including military retirement, as a gratuitous gift from the taxpayer. In truth, military retired pay is earned, deferred compensation for accepting the unique demands and sacrifices of decades of military service for careerists who often fought in two or three wars. Because most Americans are unwilling to endure those arduous conditions, the retirement system is the Services' single most important career incentive.

The American Legion urgently recommends that the Subcommittee oppose any changes to the military retirement system, whether prospective or retroactive, that would undermine readiness or violate contracts made with military retirees.

2. *Social Security Offsets to the Survivors' Benefits Plan (SBP).*—The American Legion supports amending Public Law 99–145 to eliminate the provision that calls for the automatic offset at age 62 of the military SBP with Social Security benefits. Military retirees pay into both SBP and Social Security, and their survivors pay income taxes on both. The American Legion believes that military survivors should be entitled to receipt of full Social Security benefits which they have earned in their own right. It is also strongly recommended that any SBP premium increases be assessed on the effective date, or subsequent to, increases in cost of living adjustments and certainly not before the increase in SBP as has been done in the past two years.

3. *VA Compensation Offset to Military Retired Pay.*—A continuing issue of high concern to The American Legion is the VA compensation offset to military retiree pay. The purposes of these two compensation elements are fundamentally different. Longevity retirement pay is designed primarily as a force management tool that will attract large numbers of high-quality members to serve for at least 20 years despite extraordinary and arduous conditions of service, including a forced mid-life career change. Veterans disability compensation is paid to veterans who are disabled by injury or disease incurred or aggravated during active military service in the line

of duty. Monetary benefits are related to the residual effects of the injury or disease or for the physical or mental pain and suffering and subsequently reduced employment and earnings potential. Opinions may differ over the extent to which concurrent receipt should be implemented to the offset formula used. But action should be taken to provide more equitable compensation for those who served more than 20 years in uniform and incurred substantial service-connected disabilities that severely inhibit their post-serving earning opportunities.

4. *Retention of Military Commissaries.*—The value of military commissaries in the quality of life equation for junior enlisted families and military retirees and others is indisputable. Military commissary usage ranks second only to medical health care in the non-pay compensation package according to surveys conducted among active duty and retired beneficiaries, as commissaries save patrons on the order of nearly 30 percent in food costs. Subsidized congressional appropriations permit commissaries to sell items virtually at cost, and the removal of any portion of this funding could drastically raise food costs which could cause some commissaries to close. Contrary to popular belief, military commissaries are not competitive with civilian grocery chain stores as commissary sales represent only 1.7 percent of total U.S. grocery sales.

Efforts to reduce or dismantle the integrity of the military commissary system would be seen as a serious breach of faith with a benefit system that serves as a mainstay for the active and Reserve components, military retirees, military personnel involuntarily discharged or released from active duty, 100 percent service-connected disabled veterans, and others. The American Legion urges the Congress to preserve full Federal funding of the military commissary system and to retain this vital non-pay compensation benefit which is essential to the morale and readiness of the dedicated men and women who have served, and continue to serve, the national security interests of the United States. The American Legion also rejects any efforts to privatize military commissaries. Privatization of military commissaries is a bad idea.

MILITARY HEALTH CARE FOR RETIREES

Military retirees are the only group of Federal "employees" who lose their health care benefits when they become 65 and are no longer eligible for CHAMPUS but become Medicare-eligible. Medicare covers much less than CHAMPUS, and like CHAMPUS, must be supplemented by expensive health care supplement insurance which many military retirees cannot afford. The American Legion has always supported full-funding of the CHAMPUS program, and has believed that Medicare-eligible military retirees and their dependents should continue to have access to military treatment facilities; and that all military retirees and their dependents should continue to receive free prescriptions from military medical centers.

Unquestionably, a reformed military health care system that serves to improve access, quality of care, and comprehensive care is required. The American Legion has a number of concerns, however, with the DOD TRICARE Health Care System as it affects military retirees, namely, that military retirees and their dependents are required to pay annual "registration fees" whether they use their plan or not; and questions remain concerning out-of-pocket expenses and the viability of medicare reimbursement for treatment in DOD facilities. Many military retirees do not reside near TRICARE providers. The American Legion believes that, as a minimum, the following guidelines should be incorporated or retained as part of the TRICARE package or any reform of military health care for military retirees, their dependents and military survivors:

—Timely access to uniform, comprehensive and equitable health care benefits covering the full array of services ranging from preventive health care and dental treatment plans to prescription services for all military retirees, their dependents, and military survivors regardless of age and health care status.

—Preservation of the space-available system in military treatment facilities for CHAMPUS/TRICARE and Medicare eligible military retirees and their dependents.

—TRICARE coverage should continue for the lifetime of military retirees and not end at age 65. Additionally, military retirees who become 100 percent disabled before 65 should continue with CHAMPUS/TRICARE coverage for their lifetimes with Medicare as second payer; as an absolute minimum, the requirement for 100 percent disabled military retirees to pay Part B Medicare premiums should be discontinued.

—DOD health care treatment facilities should be reimbursed by the Health Care Financing Administration for care provided to Medicare eligible military beneficiaries (Medicare Subvention). Medicare subvention should be implemented nationwide, and Medicare eligible retirees should be allowed to participate in TRICARE Prime without paying enrollment fees.

—Medicare subvention will save money for both the government and taxpayers. Equally important, it will preserve military medical readiness and keep faith with military beneficiaries who relied on repeated government promises of lifetime health care in return for their decades of career military service.

—Adequate military medical personnel, to include graduates of the Uniformed Services University of Health Science, should be retained on active duty to provide health care for active duty and their dependents, and retired military personnel and their dependents.

—Authorize military retirees and their dependents the opportunity to voluntarily enroll in the Federal Employee Health Benefits Program.

—Cost-sharing in TRICARE plans should be reasonable and statutorily fixed by law.

—The American Legion opposes the imposition of enrollment fees in the Uniformed Services Family Health Plan which is the only DOD health care program which has not disenfranchised Medicare eligible retirees.

—Pharmacy networks and mail-order pharmacy programs should be extended beyond the 40-mile radius of closing military bases and they should operate on a flat-rate basis rather that one based on percentage of costs.

—The imposition of penalty assessments should be waived for those military retirees who elected not to enroll in Part B of Medicare as they believed they would receive continuing military health care from DOD facilities which were subsequently identified for closure.

—The use of Department of Veterans Affairs medical centers by non-service-connected military retirees and their dependents who are CHAMPUS/TRICARE or Medicare eligible should be authorized. As TRICARE and Medicare providers, VA medical centers should be authorized to bill the Departments of Defense and Health and Human Services for medical care provided to these veterans.

Mr. Chairman, the nation has an obligation to do better. It has the obligation not only to those who are now serving, but to those who have already served, and to the current and future generations of Americans who require a strong national defense to protect them from the continuing threats of a dangerous world. This is not just a matter of reneging on promises; it is a matter of acting in the national interest.

MODERNIZATION AND PROCUREMENT

Mr. Chairman, America's winning technology in the Persian Gulf War, like its victorious All-Volunteer Force, did not develop overnight but had its genesis in the decade of the 1980's. The modernization of the armed forces must be a continuing process and should not be delayed nor curtailed. Once a conflict develops, it is too late to decide whether America's defense industry has the capability to mass produce advanced technologies. The American fighting man, put in harm's way, must be equipped and armed with state-of-the-art technology. A vibrant defense industrial base will ensure that military production can surge when required.

In accordance with the recommendation of the Joint Chiefs of Staff and all the Service Chiefs, The American Legion strongly believes that funding for modernization of the Services should be significantly increased to about $60 billion by fiscal year 1998, and not further delayed until fiscal year 2001. We fully support the research, development and acquisition programs of the Services, particularly that of the Army. The Army should not have to reduce its end-strength below 495,000 in order to afford its modernization. It is important to caution that trading off force structure reductions to recoup modernization resources will not work. An adequate and continuing level of funding is necessary so that the Army can meet its force modernization and force structure needs. The United States has the largest Navy in the world, but our Army is only the eighth largest in the world.

The American Legion believes that the United States Army requires at least $14 billion, rather than the requested $10 or $11 billion, to complete improvements to existing systems and to field new systems such as the Comanche. We support upgrades of the Abrams tank and Bradley Fighting Vehicle, procurement of the Comanche prior to fiscal year 2006, the configuration of Apache helicopters to the Longbow system, production of the Javelin and Crusader systems and Army digitization.

The American Legion is supportive of production of the Navy's third Seawolf submarine, development of the New Attack Submarine, more DDG–51 Arleigh Burke destroyers, funding and production of an Amphibious Assault Ship (LHD), additional LPH–17's; and accelerated production of roll-on, roll-off (RO/RO) ships. We urge the production of more F/A–18 E/F aircraft for the Navy, F–14 upgrades, funding for the Joint Strike Fighter, and the continued development of the MV–22 Osprey.

The Air Force requires more F–15E's and F–16C/D's as well as the acquisition program for the F–22, continued production of 120 C–17's, and research and development of the Joint Strike Fighter for production by 2005. The American Legion also supports the acquisition of the Joint-Air-Surface Standoff Missile (JASSM).

The American Legion further urges the Congress to expedite the procurement of improved and sensitive equipment for the detection, identification, and characterization against chemical and biological agents. Current alarms are not sensitive enough to detect sub-acute levels of chemical warfare agents. Improved biological detection equipment also needs to be expedited.

The American Legion firmly believes that with the continuing threat of nuclear proliferation, America should retain its edge in nuclear capabilities as represented by the TRIAD system, and that our highest priority should be the national missile defense of the United States.

In conclusion, the true measure of whether a defense policy adequately protects our national security interests is not necessarily how much is spent on defense, but rather whether the armed forces will have the means to fight and win when conflict arises. Our national security well-being cannot be separated from our overall national well-being. The American people cannot view themselves from a position of relative weakness in the world. To lead at home, we must lead in the world arena. If we shun this role, our own future will be shaped by others.

Mr. Chairman, this concludes The American Legion statement.

STATEMENT OF REAR ADM. JAMES J. CAREY, USNR (RET), NATIONAL PRESIDENT, NAVAL RESERVE ASSOCIATION

Senator STEVENS. Our next witness is Rear Adm. James Carey, U.S. Navy (retired), with the Naval Reserve Association.

Admiral CAREY. Mr. Chairman, I want to thank you for the opportunity to appear, and to emphasize our association's key fiscal year 1997 areas of focus as pretty much outlined in our written statement, which we have submitted for the record, which contains the details and backup justification on what I am about to address.

Today, I would like to stress five key areas, key issues that we consider of critical importance. I would like to also mention that we are also a member of and work with the National Military and Veterans Alliance, and I would focus most of my remarks today on the NG&RE account and the issue of fairness along the lines of rationale as follows, that while the Navy is approximately 30 percent of the force, last year we received approximately 10 percent of the NG&RE funds.

I would now move forward to my five issues. The first would be to ask you to ensure that there are no more personnel cuts. The Naval Reserve, indeed, took its cuts in the downsizing very early on, and any additional cuts, no matter how small, at this point cut into necessary missions and we indeed downsized very rapidly. We are at that point now where it is our opinion we should not downsize any further.

Issue No. 2, from our association's viewpoint, is the replacement of the C–9 aircraft. The oldest of those aircraft is 28 years. The average age is 21 years. This is 100 percent a Navy Reserve operational support aircraft mission, and they are very key to the at-sea logistics support of the Navy.

Our issue No. 3 is the SH–60B helicopters. These are key to the arrival of frigates coming into the Naval Reserve fleet in 1998. We need the money now to get the helos so we can train up the pilots and the crews who need to be ready for the ships when they arrive, and for us it is also a fleet compatibility issue. Without those helos we are not compatible with the fleet, and when we are not compatible with the fleet, we cannot steam and operate together.

Issue No. 4 is the mobile in-shore undersea warfare van upgrades. With the current Navy emphasis of "...From the Sea", and a focus on littoral warfare, the MIUW mission becomes even more important. The Naval Reserve has 100 percent of that mission, and these van upgrades are needed so that indeed we can bring the MIUW vans up to speed so that they are available to deploy and tie in with the active Navy.

The last issue that I would focus on today is facilities and maintenance repair. Right now, there is an identified $400 million shortfall in that area. The administration's budget outlined $8 million. My mathematics says that leaves us still a $392 million shortfall, and in our opinion we need to act on that now, before maintenance and repair indeed degrades into health and safety issues.

PREPARED STATEMENT

This completes my statement, Mr. Chairman. These are the Naval Reserve Association's key items for fiscal year 1997, and we would ask for your and your committee's support. We would be happy to answer any questions now or in writing later.

[The statement follows:]

Prepared Statement of Rear Adm. James J. Carey, USNR (Ret.)

Mr. Chairman, and distinguished members of the Committee, the Naval Reserve Association appreciates this opportunity to provide input for your consideration. In addition, we are pleased to inform you that our insights into the many complex issues facing our national defense have been sharpened, increased and strengthened through close consideration with the numerous associations that make up the National Military and Veterans Alliance. By working together, the several million members that are represented by the Alliance are better served, and our input in helping to shape a military force that is effective, well managed and responsive to the tax payers is greatly enhanced.

To help put the comments priorities and recommendations of the Naval Reserve Association in proper context, I want to share with you a recent comment made by the former Chief of Naval Operations Admiral Boorda. He appropriately captured the increased role of the Naval Reserve by pointing out that he had ceased making reference to the title of Reserve. Rather, he spoke of just one Navy, with the Reserve portion being a part—an important part, without which the Navy would not be able to meet its obligations.

Therefore, Mr. Chairman, while it is the Naval Reserve Association that we represent, it is for the benefit of that one Navy that we solicit your support for the equipment, legislation and resources needed to maintain a strong national defense.

The wisdom, good judgment and strong support of your Committee has been a key element in bringing the Naval Reserve to its current level of strength and readiness. We need your continued assistance.

The recognition given to the Reserve forces, and its acceptance as a part of the one Navy, has been an evolutionary process and represents a significant commitment. To maintain what has been built, and to continue the justified reliance on the Reserve force we, the Naval Reserve Association, recommend the following.

NAVAL RESERVE MANPOWER

The Naval Reserve Association recommends that the Naval Reserve be maintained in fiscal year 1997 at the current fiscal year 1996 authorized Selected Reserve end-strength of 98,894 including 17,587 Full Time Support (TAR) personnel. This level of personnel is justified by the steadily increasing involvement of the Naval Reserve in active Navy missions. In addition, as the following figures demonstrate, the steady decline of end-strength for the Naval Reserve has been significant and is quickly reaching the point of concern when compared with the missions to be performed.

	Fiscal year					
	1991	1992	1993	1994	1995	1996
End-strength	153,400	144,000	133,675	113,400	100,700	98,894

FORCE STRUCTURE

The Naval Reserve basic force structure as of 30 September 1996 will consist of:

Aircraft squadrons:	
Carrier air wing (CVWR)	1
Maritime patrol wings	2
Fleet logistics support wing	1
Helicopter wing	1
Total	35
Ships:	
Operational Reserve carrier (ORC)	1
Mine countermeasures control ship (MCS)	1
Frigates (FFG)	10
Mine countermeasures ships (MCM)	4
Mine hunter control ships (MHC)	2
Landing ship tank (LST)	2
Total	20
Other:	
Fleet hospitals	4
Mobile inshore undersea warfare units	28
Construction battalions	12
Cargo handling battalions	12
Special boat units	2

Other supporting and augmenting units without major hardware include 4,095 intelligence program personnel (48 percent of the Navy's total capacity) and a wide spectrum of trained specialists to support and augment the fleet and the Navy shore establishment.

In the near term, the greatest threat to an overall effective Naval Reserve force structure and capability is the loss of scheduling authority, and the possible transfer of Naval Reserve VR organic airlift force (OSA) to TRANSCOM. This proposal, in the guise of increased efficiency, would seriously threaten the ability of the Navy to obtain essential responsive and timely air logistic support. The Navy's program is acknowledged to be the most efficient and effective organic airlift operation in the Department of Defense. The 12 Naval Reserve Fleet Logistics Support squadrons supply 100 percent of the fleet's intratheater airlift with C–9's, C–130's and C–20's, deployed continuously to the Mediterranean and the West Pacific in direct support of fleet operations. Additionally, the Naval Reserve would lose several thousand skilled and trained personnel and the ability to bring reservists to training sites for drills that is inherent in the current organic airlift capability that is utilized to minimize the number of Naval Reserve training bases. Concerns expressed by the Naval Reserve Association, Naval Reservists and other concerned parties have resulted in stopping, at least temporarily, the Naval Reserve VR force transfer. But, the Department of Defense has directed that effective control through consolidation of scheduling be vested in the Transportation Command. In our opinion, a directive to "coordinate" rather than "consolidate" scheduling would have been a far better decision. Consolidation removes from Navy commanders the ability to prioritize and control their essential logistic support and hence the Navy effectively becomes a mere customer of a separate entity competing with others for essential, timely logistic support.

Other proposed force structure changes include the activation of an E–2C reserve squadron at NAS Atlanta for drug interception operations, the proposed transfer of a large deck amphibious ship, additional mine countermeasures vessels and possibly of one or two tenders to the Naval Reserve force, and the probable loss of one to four frigates.

Force level recommendation.—The Naval Reserve Association recommends that the Naval Reserve surface force be maintained at a level no less than the current structure of 20 ships, that the current Naval Reserve fleet logistics support force be maintained intact with no loss of Navy control of scheduling and prioritization of missions.

EQUIPMENT MODERNIZATION

The Naval Reserve Association continues to advocate assignment of modern fleet-compatible equipment to the Naval Reserve. Much of the progress made in improving the readiness and capability of Naval Reserve units has been the direct result of Congressional action designating new equipment for the Naval Reserve in the National Guard and Reserve Equipment (NG&RE) appropriation. It should be noted that the Naval Reserve Force of today would be ineffective without the Congressional add-ons over past years through the NG&RE and personnel accounts. However, it should also be noted that the Naval Reserve has not received a proportionate share of NG&RE equipment funding in recent years. In fiscal year 1996 the Naval Reserve share of $777 million total NG&RE funding was only $40 million! This is only 5 percent which seems patently disproportionate to the other services.

NRA has identified unfunded Naval Reserve equipment requirements for fiscal year 1997 of approximately $775 million for consideration by Congress. They are outlined in the list below. In addition, and of particular concern is high priority requirement for procurement of replacement aircraft for the venerable Naval Reserve C–9 (DC–9) transport aircraft, procurement of SH–60B helicopters, upgrades of the F/A–18 aircraft, and MIUW equipment.

The following Naval Reserve equipment list recommended by the Naval Reserve Association for fiscal year 1997 National Guard and Reserve Equipment funding is in addition to any anticipated migration of hardware from the reducing active Navy force, and represents major Naval Reserve hardware programs.

NAVAL RESERVE ASSOCIATION RECOMMENDED FISCAL YEAR 1997

[Dollars in millions]

Priority	Item nomenclature	Requirement
	Unfunded new/replacement aircraft:	
1	C–9 replacement aircraft (4 aircraft)	$160.00
2	SH–60B (5 aircraft)	131.00
3	E–2C (Plus) (2 aircraft)	150.00
	Total new aircraft	441.00
	Unfunded equipment/modification requirements:	
1	F/A–18 upgrade program	96.00
2	MIUW van system upgrades	102.00
3	P–3C update III kits (9)	56.00
4	Miscellaneous equipment [1]	141.15
5	F–14 upgrade program	95.00
6	P–3C ISAR radar systems	18.00
7	ALQ–126B DECM equipment	25.00
8	C–9 avionics improvement program	40.00
9	HH–60H refueling upgrade	16.00
10	C–9 engine upgrade	45.00
	Total	634.15
	Miscellaneous equipment: [1]	
1	Cluster ranger	8.00
2	IBU small craft	3.00
3	P–3C APS 137 A(v)5 to B(v)5	3.00
4	MAST communication vans	4.00
5	Traffic collision avoidance (C–20)	2.50
6	NEAT equipment	2.20
7	Windshear detection system (C–20)	4.00
8	Expeditionary CESE/TOA	10.00
9	P–3C T–56 fuzz zapper	.50

NAVAL RESERVE ASSOCIATION RECOMMENDED FISCAL YEAR 1997—Continued

[Dollars in millions]

Priority	Item nomenclature	Requirement
10	Mark 3 dive system	1.50
11	NAS security equipment	10.00
12	C–9 cargo rig equipment	.50
13	Integrated landing system (E–2)	1.50
14	Night vision goggle (F/A–18)	.75
15	P–3 color WX radar	1.50
16	LANTIRN	10.00
17	P–3C autopilot upgrade	6.00
18	FLIR LTD/R (F/A–18)	15.00
19	ARC–210 (F–14)	1.00
20	E–2 SATCOM	4.00
21	P–3 support equipment	7.00
22	Mobile command center (P–3C)	4.00
23	C–9 alternate landing gear IND	.90
24	C–9 external light replacement	1.40
25	C–9 digital cabin pressurization	2.50
26	C–9 PA system upgrade	1.20
27	P–3C simulator update	3.50
28	SH–2G a kit magic lantern	1.20
29	LCU	15.00
30	CANDO FFG upgrade	7.50
31	P–3C USQ–78A display controller	8.00
	Total miscellaneous [1]	141.15
	Overall total unfunded equipment request	775.30

In this era of rapidly decreasing defense resources, the National Guard and Reserve Equipment procurement account becomes even more important and critical to the maintenance of a viable reserve component than in past years. If the cost-effective reserve components are to retain or bolster their forces and effectiveness as a result of accelerating drawdown of the active force, they need modern capable weaponry.

DESCRIPTION OF RECOMMENDED NG&RE ITEMS REPLACEMENT AIRCRAFT

C–9 Replacement aircraft (4 new aircraft)

The current Fleet of C–9 transport aircraft will reach obsolescence in the next few years due to deficiencies in the avionics suite, power plant and airframe aging. The existing avionics suite does not meet future known International Civil Aviation Organization (ICAO) and Federal Aviation Administration (FFA) requirements for over-water navigation. Existing C–9 engines do not meet current ICAO/FAA environmental and noise abatement requirements and could possibly restrict the Navy's ability to support the CINC's due to reduced operational latitude in airfield usage. The cost of maintaining the existing C–9 Fleet increases each year. In fiscal year 1998, ICAO/FAA requirements for additional minimum avionics capability mandate costly C–9 modifications. The C–9 must also meet stringent FAA Stage III engine emission and noise requirements by the year 2000 and ICAO requirements by 2002. These aircraft are being continuously deployed overseas in direct support of fleet operations.

SH60B (5 new aircraft)

Required to provide Naval Surface Reserve Force with complete ASW compatibility. Over the FYDP the force is transitioning from flight I and II FFG–7 frigates to flight III and IV FFG's equipped with SQQ–89 LAMPS Mark III shipboard weapons system. The Reserve SH–2G ASW helicopters are not SQQ–89 compatible, hence cannot provide an integrated system with the newer FFG's. No redistribution from active SH–60B assets is anticipated due to limited quantities. Requested funding for 5 this year of a final requirement of 10 aircraft.

E–2C II (PLUS) (2 new aircraft)

Fleet squadrons are undergoing a transition to E–2C Group II aircraft which will be completed by fiscal year 2000. This transition will leave VAW–78 E–2C Group 0 aircraft incompatible with all Fleet shore/afloat AIMD's and supply support facilities. Group 0 aircraft will also be unable to sustain lengthy operations aboard any carrier due to support unavailability. Group 0 aircraft cannot be modified to meet Group II configurations; replacement aircraft are required. Two (2) aircraft are requested in fiscal year 1997 and 2 in fiscal year 1998.

HIGH PRIORITY UNFUNDED EQUIPMENT/MODIFICATION REQUIREMENTS

F/A–18 upgrade program

Reserve F/A–18A aircraft require hardware/wiring upgrades to use 91C Operational Flight Program (OFP) software. The 91C OFP will enable Naval Reserve Hornets to deliver all current precision guided munitions and AMRAAM. These upgrades would make reserve aircraft totally compatible with Fleet F/A–18C in all phases of the strike fighter mission. The upgrade package would include improvements to the radar system, armament control system, weapon station wiring and cockpit digital display indicators.

MIUW TSQ–108 (V)3 van system/upgrades/support

This request supports continuation of ongoing upgrade programs to provide AN/TSQ–108A Radar-Sonar Surveillance Center (RSSC) vans with integrated radar, Thermal Imaging Sensors/Visual Imaging Sensors (TIS/VIS), both mobile and portable Sensor Platform Systems, and Acoustic Sensor String packages. The enhanced capability decreases system vulnerability, increases operational flexibility, and significantly improves acoustic and visual surveillance capability for shallow water defense. Integrates ALR–66 ESM systems, AN/SQR–17A Sonar processors, Embedded Readiness Training System (ERTS) software and Graphical Data Fusion System (GDFS) into the RSSC vans. Funds additional van systems; additional AN/SQQ–TI Trainers, completing all 22 for installation into van systems; and Civil Engineering Support Equipment to transport and support van systems.

P–3C update III kits (9)

Needed for common configuration with Fleet P–3C squadrons, and to support further upgrades for ASUW Improvement Program (AIP). Failure to upgrade reserve P–3C's to the Update III configuration will result in tactical obsolescence of these aircraft and will limit the Reserve Force's ability to meet CINC mission taskings and operational requirements.

F–14 upgrade program

Upgrades required to provide reserve F–14 aircraft with precision strike capability include a ECP 245, Programmable Tactical Information Display (PTID), the wiring A-Kit and 1553 Digital Bus, ALR067 Radar Warning, BOL CHAFF, AWG–15G, 5400B Hybrid Computer, ARC–210, TARPS, Programmable Multiple Display Indicator Group (PMDIG) and a low Altitude Navigation Target Infra Red Night (LANTIRN) Pod. These upgrades will give reserve F–14's the same long range acquisition/precision strike laser guided/conventional bombing mission capability as the Fleet, and provide complete compatibility for Fleet missions.

P–3C ISAR radar systems

Provides additional Inverse Synthetic Aperture Radar (ISAR) systems, AN/APS–137 for reserve aircraft. All Fleet P–3C aircraft are receiving the system as part of AIP modifications. The Reserve force is only scheduled to receive 5 AN/APS–137 systems, so additional installations will provide increased operational capability for reserve squadrons.

GENERAL PERSONNEL ISSUES

The Naval Reserve Association greatly appreciates the many things the Congress has done for the Naval Reserve and for military personnel, both active and Reserve and their dependents. The Congressional action last year that established a Ready Reserve Mobilization Income Insurance Program and dental insurance for members of the Selected Reserve clearly reflects forward thinking if we are to recruit and retain quality personnel in the Reserve components.

To continue the process of developing personnel practices for the Reserve forces that lead toward attracting and retaining the best and brightest people, we recommend the following:

—Providing tax credits to employers of reservists.

—Restoring full tax deductibility for expenses associated with reserve duty.

- —Establishment of a demonstration project to evaluate the cost versus benefits of extending full commissary benefits to drilling reservists.
- —Support for military retirees who were led to believe that they would have life time medical care.
- —Providing military retirees who are eligible for Medicare the option of enrollment in TRICARE or continued treatment at military treatment facilities through reimbursement from Medicare funds (subvention).
- —Continuing an equitable COLA Program for military retirees.
- —Creating parity in pay and benefits between active duty and reserve personnel without a distinction that is based on length of active duty orders.

NAVAL RESERVE FACILITIES

With Naval Reserve facilities at an average age of 43 years, there is a need to place a priority on increased funding for military construction (MCNR). The current backlog of $410 million includes Naval Reserve training and troop housing and messing facilities. Of particular concern is the growing backlog for maintenance and repair, which is currently at the $170 million level. The shortfall is in part explained by the decreasing appropriations in recent years as shown in the following:

MCNR

Year	*Millions*
1988	73.7
1989	60.1
1990	56.6
1991	80.3
1992	49.0
1993	15.4
1994	25.0
1995	22.7
1996	19.1

With a budget request of only $11 million for fiscal year 1997, this significant problem will get worse. Congressional help in increasing the budget request is strongly recommended.

SUMMARY

The Naval Reserve Association recommendations for 1997 include:

- —Maintaining stability in Naval Reserve force structure, personnel strength, and programs.
- —Retention of the force and maintenance of scheduling control of current Naval Reserve VR organic airlift (OSA) organization.
- —Continued participation by the Naval Reserve in the total force Navy.
- —Continued modernization of the force through National Guard and Reserve equipment (NG&RE) procurement with emphasis on C–9 replacement transport aircraft, SH–60B helicopters, upgrades of the F/A–18 aircraft, and MIUW TSQ–108(V) van system/upgrades.
- —Equitable treatment for naval reservists during the continued downsizing and restructuring of the force.
- —Support for Reserve component legislation that includes tax deductibility of unreimbursed direct expenses for drilling reservists; and employer tax incentives.
- —Improving quality of life benefits for active duty, reserve, and retired military personnel including available and affordable health care and cost of living adjustments (COLA's).
- —Increased funding for military construction and maintenance and repair of Naval Reserve facilities.

The Naval Reserve Association appreciates the opportunity to present these issues.

BIOGRAPHICAL SKETCH OF REAR ADM. JIM CAREY

Rear Adm. Jim Carey, the Naval Reserve Association's new President, began his Naval career in 1961 by enlisting as a seaman recruit in the Naval Reserve. Following commissioning from OCS Newport, RI, in August 1962 he reported aboard U.S.S. *Topeka* (CLG 8) for three years of sea duty, including deployments to Vietnam.

Leaving active duty in 1966, he affiliated with the Naval Reserve rising through various departments to hold seven separate commands. He was promoted to flag rank in 1989. From 1989 to 1992 he was assigned as the Commander, REDCOM SIX during the time of the President's recall of Reserve personnel to support Operations Desert Shield/Storm. REDCOM SIX, with over 10,000 drilling Naval Reserves, is the nation's largest REDCOM and oversaw the virtually flawless recall of more personnel than any other Readiness Command during the period surrounding the liberation of Kuwait. Rear Adm. Carey's last assignment was on the Staff of the CNO as Director of Logistics Plans and Policy Division (N40). He retired from the Naval Reserve in October 1994.

In civilian life, he is Chairman of the Board and Chief Executive Officer of International Technology Resources, Inc., a Washington, DC-based firm specializing in joint venture operations in the U.S. and throughout the world. He has also served two presidents as both Vice Chairman and Chairman of the Federal Maritime Commission, and represented the President in the Far East at various international events commemorating the 50th anniversary of World War II. His civic work includes the presidency of the Conservative Network, and various positions with other White House, Congressional, and Executive Agency-affiliated organizations.

A native of Berlin, Wisconsin, and 1960 graduate of Northwestern University, Rear Adm. Carey was inducted into the NATO Priory of the Sovereign Military Order of the Temple of Jerusalem, and has been knighted in the Military and Hospitaller Orders of Saint John and Saint Lazarus. His decorations include four awards of the Legion of Merit.

Rear Adm. Carey makes his home in Alexandria, Virginia.

Senator STEVENS. Well, admiral, we are going to increase some money in the Naval Reserve O&M account. I am not sure we will earmark it. If we start that it gets away from us very quickly, but we will also try to increase your personnel spending. I am not sure we can get to too many of the others.

The problem is, we are trying to catch up on procurement, looking at new destroyers and a few other things. The rate of replacement of those is abominably low. We will do everything we can to increase that.

It is not possible to do it all at once, particularly, again, if we have a bill, even with the replacement of the moneys that we asked to be replaced from the President's bill, we are some $10 billion different from the President's bill, but we are still below it this year.

It is hard to increase spending if we are still below the current fiscal year. I do not know any way to get that up. If we can, we will, but we will meet you part way, anyway.

Admiral CAREY. I appreciate it.

Senator STEVENS. I did look at your statement. It is a very good statement. I appreciate it very much.

Admiral CAREY. Thank you very much.

STATEMENT OF DAVID W. ROBERTS, VICE PRESIDENT FOR STRATEGIC PLANNING, SCIENCE APPLICATIONS INTERNATIONAL CORP.

Senator STEVENS. The next witness is David Roberts, vice president for strategic planning, from the Science Applications International Corp.

Mr. ROBERTS. Good afternoon, Mr. Chairman. I would like to shift our focus this afternoon to health care technology that benefits all our forces, their families, and our retirees.

On behalf of Dr. John Warner and Mr. Dave Cox, I am pleased to have this opportunity to testify about the completion of the most successful defense automation project of the 1990's, the composite health care system, or CHCS, and to thank you for your support of this project.

This committee should take great pride in this accomplishment, as it was mainly the leadership and guidance of this committee that ensured that the military's health care system would be automated. This automation has produced an increase in the number of patient appointments, reduced pharmacy waiting times, provided more integrated information for physicians to make quality decisions, and reduced operating costs.

CHCS was delivered on time and under budget. Last month, the General Accounting Office released its final report on CHCS entitled, "Defense Achieves Worldwide Deployment of the Composite Health Care System."

In this report, the GAO concluded that with the 8-year investment in CHCS that DOD will reap a $4.1 billion benefit. No other DOD program can make this claim.

One reason the program has been so successful is that Defense leaders managed it systematically, openly, and in close collaboration with GAO and SAIC.

However, there is now more work that needs to be done in military health care automation. A number of initiatives need your attention. One such project which builds upon the composite health care system is called the PACMEDNET, Pacific Medical Network, a project that is ongoing in Alaska, Hawaii, California, and Washington State. This project was demonstrated during your ad hoc committee last Wednesday down the hall here for the Senate and Members of the House, and it was a successful demonstration.

Under PACMEDNET, patient records are being completely automated and transportable anywhere in the world. In other words, you move the patient's record instead of the patient or the provider.

This technology is next going to be utilized in Europe and in Bosnia, and will become the backbone for the theater medical information project.

PREPARED STATEMENT

With your continued support and leadership in the medical arena, DOD will continue to have the premier medical system in the world.

Again, thank you for your support and leadership.

[The statement follows:]

Prepared Statement of David W. Roberts

Mr. Chairman and Members of the Committee: Good afternoon. I am David Roberts, Vice President for the Health Care Technology Sector at Science Applications International Corporation (SAIC), which is headquartered in La Jolla, California. I am pleased to be here today to represent SAIC, the world's largest employee-owned advanced technology company. SAIC designs information technology solutions to help its customers accommodate change and succeed in their competitive environments. Strategic systems integration has been one of SAIC's strengths for more than 27 years. As a result, independent surveys have ranked SAIC among the top information technology companies in the world. SAIC now has 22,000 employees worldwide serving customers in a wide range of industries including health care, transportation, the environment, banking, national security, communications, and energy.

For today's hearing, I would like to share with this Committee an update on the successful completion of the Composite Health Care System (CHCS) which this Committee has strongly supported. In addition, I would like to share with you key lessons we learned from this project which we believe can be utilized on other large automation projects. I encourage you to read General Accounting Office (GAO) report AIMD–96–39 titled "Defense Achieving Worldwide Deployment of Composite

Health Care System" which elaborates on my points today. Government and Industry leaders alike agree that CHCS has been the most successful defense automation project of the 1990's.

SAIC was selected in 1988 as the prime contractor by the Department of Defense (DOD) Health Affairs to develop, deploy, operate, and maintain its primary medical information system, called the Composite Health Care System (CHCS). Under our 8-year contract, we worked in partnership with DOD to design and implement this clinical and administrative system that now serves over 9 million active beneficiaries at 575 Medical Treatment Facilities worldwide.

The Composite Health Care System was and is intended to serve the health care information needs of all three military services, each with diverse peacetime and wartime requirements and sometimes differing approaches to information systems. After winning the competitively procured CHCS contract, SAIC and DOD initiated formal and disciplined processes to bring decision-makers together for system planning and requirements definition. In particular, we developed collaborative relationships with our customer. Our corporate culture emphasizes the importance of defining customer satisfaction with the customer and then to practice it every day for the life of the contract. In addition, DOD approached program management in a systematic and open fashion, and in close collaboration with GAO and SAIC.

To effectively manage this complex program meant recognizing that we needed to identify and resolve the inevitable problems that would occur with large-scale systems engineering, software development, testing, deployment, implementation, and customer support. We knew we had to be able to respond rapidly to change. DOD built a strong program office. We built a strong program office and collocated with DOD in Falls Church, Virginia. DOD and SAIC then used an incremental approach to system development and requirements definition. We proactively solicited input from the user community and GAO and designed the technical approach to provide an integrated hardware and software architecture that is fully scalable to support the vast range of DOD medical facilities, from small clinics to large regional facilities.

Over the years, as the hardware and communication systems technically improved, and the health care world transitioned to what is now known as managed care, SAIC evolved the CHCS system with upgrades that resulted in significant savings and increased computer performance. Pharmacy waiting time was drastically reduced. Physicians were able to get all the information they needed electronically in the medical clinics and hospital environments to make the most informed decisions possible. Patient appointments were greatly increased in number because of this improved system automation. And CHCS not only truly revolutionized military health care, but the system was delivered on time and under budget, even though the system requirements were increased to address multiple changes in the health care delivery environment. The benefit-to-cost ratio for CHCS is over 1.4, as assessed by DOD, which indicates that this investment has resulted in substantial benefits realization now valued at more than $2.8 billion for the 10 year life cycle period. On April 5, 1996, the GAO stated that "Defense currently projects total benefits of $4.1 billion to be derived from using CHCS".

I believe that much of the success of CHCS is tied to SAIC's commitment to several critical factors in long-term, complex information technology projects. I would like to explain these five factors and give some examples. It is important to:

—First, maintain disciplined processes for strategic planning and identifying evolving customer needs and mission goals of the system

—Second, establish an integrated program team that works in partnership with the customer and other contractors to effectively coordinate actions needed

—Third, manage the information system project as an investment in two ways: first, by evaluating the benefits, risks and budget trade-offs of key decisions throughout the project life cycle; and second by investing in process enhancements and tools

—Fourth, systematically measure all key process performance indicators and track process improvement,

—Fifth, use a systems approach to maintain fiscal and technical management while accommodating evolutionary changes over the project's life cycle.

Examples of the CHCS program management and best practices can be illustrated in the two exhibits on the following pages. The first exhibit shows how DOD and SAIC built upon technology advances and cost/performance improvements in computer hardware and data storage technologies by developing an extensible architecture. Through this evolution, the operating systems and communications architectures were implemented to support changing and increasingly more complex customer requirements. Eight years ago, we could not have accurately predicted these advances in technology and changes in requirements. But we integrated the planning, budgeting, and evaluation processes to ensure implementation of system improvements and optimal technology as it became available, and as requirements were refined. A strong operational test and evaluation team of both SAIC and government professionals enabled us to identify and correct problems in a controlled system test environment before releasing software to the sites.

EXHIBIT 1

CHCS Extensible Architecture

	1988	1989	1990	1991	1992	1993	1994	1995	1996
DoD Operating Environ.	IP Vol = 5.0 mil IP Cost ⬆ OP Vol = 51 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 4.4 mil IP Cost ⬆ OP Vol = 52 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 4.2 mil IP Cost ⬆ OP Vol = 54 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 4 mil IP Cost ➡ OP Vol = 55 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 3.6 mil IP Cost ➡ OP Vol = 55 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 3.0 mil IP Cost ➡ OP Vol = 57 mil OP Cost ⬆ 9 mil beneficiaries	IP Vol = 2.3 mil IP Cost ➡ OP Vol = 57 mil OP Cost ➡ 9 mil beneficiaries	IP Vol = 2.1 mil IP Cost ➡ OP Vol = 56 mil OP Cost ➡ 9 mil beneficiaries	IP Vol = 2.0 mil IP Cost ➡ OP Vol = 55 mil OP Cost ➡ 9 mil beneficiaries
CONOPS	Separate Services Separate Facilities Total Int. System	Separate Service Int. Hosp & Clinic Total Int. System	Unified Service Int. Hosp & Clinics Total Int. System Stand Alone PAS	Unified Service Int. Hosp & Clinics Int. OP System Int. IP System Stand Alone PAS	Unified Service w/ Private Partners Int. Hosp & Clinics Int. OP System Stand Alone RX, LAB IP Deferred Stand Alone PAS Managed Care	Unified Service w/ Private Partners Int. Hosp & Clinics Int. Regions Stand Alone RX LAB, RAD, PAS Int. OP Sytem, IP = R&D COTS Integration Managed Care Third-Party Collection	Unified Service w/ Private Partners Int. Hosp & Clinics Int. Regions IP=R&D (CIW/PWS) COTS Integration Managed Care EIS/DSS = Prototype I&I Laboratory	Unified Service w/ Private Partners TRICARE Contractors Int. Hosp & Clinics Int. Regions IP=Alpha Testing COTS Integration EIS/DSS = CEIS I&I Laboratory PACMEDNET	Unified Service w/ Private Partners TRICARE Contractors Int. Hosp & Clinics Int. Regions IP=Alpha Testing COTS Integration EIS/DSS = CEIS I&I Laboratory PACMEDNET Bosnia
Hardware	VAX 8500 VAX 3000	VAX 6500 VAX 3000	VAX 6000 VAX 3000	VAX 6000 VAX 4000 VAX 3000	VAX 6000 VAX 4000 VAX 3000	VAX 6000 VAX 3000 Intel 486	VAX 6000 Alpha 7700 Intel 486	VAX 8000 Alpha 7700 Alpha 2100 Intel 486	Alpha 8400 Alpha 2100 Alpha 600 Intel 466 (Phaseout)
Operating System	VMS DSM	VMS DSM	VMS DSM	VMS DSM	VMS DSM	VMS DSM	VMS DSM MSM UNIX DOS	Open VMS/DSM UNIX MSM	Open VMS/DSM UNIX (Phaseout) MSM (Phaseout)
Comm. Architecture	Coax LAN Stat MUX Network	Coax LAN Stat MUX Network	Coax LAN Stat MUX Network	Ethernet LAN Coax LAN Stat MUX Network DECNET/LAT	Ethernet LAN Coax LAN Stat MUX Network DECNET/LAT	Ethernet LAN DECNET/LAT TCP/IP	EthernetTCP/IP LAN DECNET/LAT DISN WAN FDDI	EthernetTCP/IP LAN DECNET/LAT DISN WAN FDDI	EthernetTCP/IP LAN DECNET/LAT DISN WAN FDDI
Deployed Facilities	15	70	130	190	190	250	375	575	650
Users Beneficiaries	7,000 5 m	20,000 1 m	30,000 1.5 m	50,000 2.5 m	50,000 2.5 m	70,000 4 m	90,000 6 m	120,000 7.5 m	140,000 9 m
Milestone 3		▲ →	▲ ⇨	▲ ⇨	⇨ ▲				

EXHIBIT 2.—CHCS IMPROVEMENTS

[Dollars in thousands]

	Actuals				Goal 1996
	1992	1993	1994	1995	
Development:					
SEI maturity level	1	2	2	2	3
Errors/KSLOC	7	4	1.5	2	1
Cycle Time/700 KSLOC (months)	30	24	13	14	12
Cost/KSLOC	$63	$50	$28	$14	$12
Customer satisfaction (1 out of 10)	5	6	7	8	8
Customer service and support:					
Sites deployed to date	190	250	375	575	650
O&M cost/month/site	$75	$65	$40	$20	$12
10 year life cycle system cost (500 user system)	$3,950	$3,950	$2,400	$1,900	$1,600
People trained to date	50,000	70,000	90,000	120,000	140,000
Performance (target ≤1)	1.5	.9	.8	.8	.8
Availability (percentage)	96	98	99.5	99.7	99.8
Customer satisfaction (1 out of 10)	7	9	9	9	9
Overall customer benefit: Total contract cost (ETC)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000

The second exhibit shows CHCS improvements, as measured over several years by key process indicators. In 1992–93, we engaged in discussions with the government to identify no more than 12 to 15 measures of program maturity and success. We then started collecting data on the mutually agreed upon measures. This allowed us to identify process weaknesses and breakdowns that were impeding a "better, faster, cheaper" outcome in all aspects of the program. We believe in the old maxim, "If you can't measure it, you can't manage it." We also believe that continuous process improvement and a regular practice of examining "lessons learned," systematically applied over the course of several years, can lead to substantial improvement in effectiveness.

Software development is achieved through processes that can be objectively improved to higher levels of maturity; that is to say, lower error rates and higher repeatability of success. Lower error rates mean less rework, fewer delays, less cost, and fewer surprises. This also improves customer satisfaction. In the same fashion, we started measuring key indicators of customer support processes. The system now runs faster, is available for use 99.7 percent of the time, and costs much less per site or per user. The paradox that better and faster can also be cheaper is truly illustrated by this data.

In conclusion, CHCS has truly been a best value procurement for the military and the government. CHCS is the backbone of DOD's TRICARE program and is being interfaced with TRICARE Support Contractors' systems and with other federal health care systems such as those used by the Department of Veterans Affairs. Building upon the CHCS program, the military has been prototyping a transportable computerized patient record that can move patient data from facility to facility across vast regions of the Pacific in a Congressionally funded project known as PACMEDNET. This advanced technology is also going to be used to provide state-of-the-art health care for our forces in Bosnia participating in Operation Joint Endeavor. These follow-on advances will continue to make CHCS a success story well into the next century. You all should be proud of your key role in this Government success story. Thank you for your continued support.

There is so much more that I can tell you about CHCS and SAIC's efforts, though my time is up. I would be happy to answer any questions that you may have at this time.

INTRODUCING THE COMPOSITE HEALTH CARE SYSTEM

The Future of Military Health Care Is Now

Science Applications International Corporation (SAIC) has designed, developed, and implemented a medical information management system for the Department of Defense (DOD). This composite Health Care System (CHCS) is a fully integrated hospital information system that connects medical departments, hospital wards, outlying clinics, laboratories, and pharmacies, integrating their information with computerized patient files. The result? Up-to-the-minute patient information that's just a computer keystroke away.

CHCS will serve more than 9 million beneficiaries of U.S. Military health care worldwide. From Tripler Army Medical Center in Honolulu, Hawaii, to the USA 98th Hospital in Nuremberg, Germany, CHCS will be installed in more than 700 DOD hospitals and clinics providing health care to the men and women of the armed services and their dependents, veterans, and the retired military community.

Overall, CHCS means shorter waits for patients, faster reporting of diagnostic test results, improved use of medical and professional resources, and a significant improvement in the quality of patient care.

Modular and Flexible

The integrated, modular program design of CHCS allows the system to be expanded as a facilities requirements increase. CHCS automates data related to inpatient and outpatient care in the following areas: Patient administration and managed care enrollment; Specialist referral management; Provider network management; Physician and nursing patient exams; Computerized lab and radiology results; Computerized pharmacy and dietetics; Electronic mail staff message network; Management and administration reports.

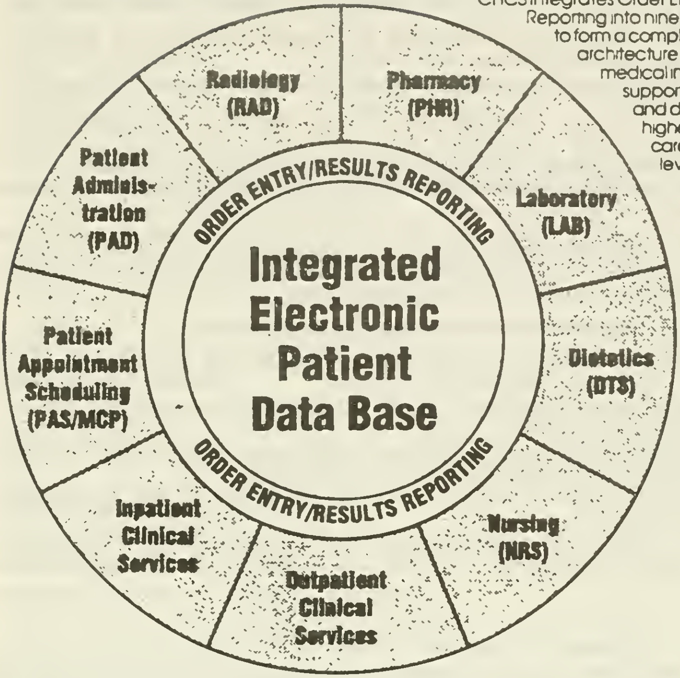
CHCS can be easily customized to meet specific hospital or departmental needs. Still, despite its comprehensive nature, the system has proved easy for staff to learn and use to improve patient care.

Tomorrow's Solutions Are Working Today

CHCS is in place in military treatment facilities around the world, and there has been substantial positive feedback from military health care providers and their patients about the timesaving and quality care benefits of the CHCS medical information management system.

From streamlining patient appointment bookings and hospital admissions to simplifying access to patient laboratory test results to speeding up the filling of prescriptions—this comprehensive computer system is improving health care for DOD beneficiaries.

Here is an overview of the numerous benefits that have been documented since CHCS was tested and approved by DOD.


Radiology (RAD)
Pharmacy (PHR)
Laboratory (LAB)
Dietetics (DTS)
Nursing (NRS)
Outpatient Clinical Services
Inpatient Clinical Services
Patient Appointment Scheduling (PAS/MCP)
Patient Adminis-tration (PAD)
ORDER ENTRY/RESULTS REPORTING
Integrated Electronic Patient Data Base
ORDER ENTRY/RESULTS REPORTING

Using Computer-based Patient Records (CPRs), CHCS integrates Order Entry and Results Reporting into nine individual modules to form a complete software architecture. This fully integrated medical information system supports the administration and delivery of the highest quality health care with an exceptional level of cost control.

BENEFITS TO MEDICAL PROFESSIONALS

CHCS saves staff time and increases job performance and satisfaction

Results retrieval is the outstanding timesaving benefit for physicians and staff. Immediate notification of results to physicians assists in critical decisionmaking.

Improved drug inventories help pharmacies monitor shelf life and quantities.

Reduced paperwork due to automation and electronic storage allows staff more time to concentrate on the real work of providing health care.

Improved accuracy of laboratory results and expedited radiology procedures through integration and the interface between the Kurzwell Radiology System and CHCS.

Improved quality control reduces transcription errors. Accurate work load reporting is faster and easier, saving staff time.

Improved productivity and utilization management through Ad Hoc Reports and utilization review.

Improved communication through e-mail eliminates time wasted in telephone tag.

Improved clinic administration with work load reporting and end-of-day and end-of-month processing.

Improved documentation and accountability with increased documentation of patient's medication orders.

Improved scheduling reduces errors and more effectively assigns staff resources to the benefit of patients and professionals.

Systematic tracking of a patient's treatment course provides an audit trail that reduces duplication of services and lost test results.

BENEFITS TO PATIENTS

CHCS increases quality through complete, accurate, secure information about patients and their care

Immediate access to and secure maintenance of private personal medical records for authorized users facilitates appropriate patient care and saves lives in emergency situations.

Increased access to care through better scheduling and resource utilization.

Fewer repeated tests and examinations result from improved reporting and data management.

Improved patient appointment scheduling and reduced overbooking allows patients to spend less time on the phone and in clinics.

Improved health care professional/patient relationships because providers have more time for consultation.

Improved drug inventories and decreased pharmacy wait time through Physician Order Entry, which allows prescriptions to be ready and waiting for the patient. CHCS telephone refill services save time for patients and pharmacy staff.

Faster patient processing for radiology and lab work shortens waits for patients in scheduling tests and retrieving results.

Current, accurate patient registration information is assured because records are constantly updated with patient treatment and address information.

Greater patient satisfaction with results due to increased information on potential outcomes as well as timely treatment and prescriptions.

COST BENEFITS OF INFORMATION MANAGEMENT

CHCS reduces costs by eliminating duplication and tracking of data to assist in determining the most successful medical strategies

Immediately accessible information permits the assessment of the cost effectiveness of resources used by providers.

Systematic tracking of patients' treatment courses reduces the incidence of duplicate services resulting from misplaced orders or test results.

Treatment patterns may be compared by providers to determine the most successful and cost-effective clinical protocols.

Improved data collection for outcomes measurement, including the ability to conduct outcomes research on a large population, provides health care professionals with reliable treatment information.

BIOGRAPHICAL SKETCH OF DAVID W. ROBERTS

David W. Roberts is Vice President for Strategic Planning at Science Applications International Corporation's (SAIC) Health Care Technology Sector. SAIC is the largest employee-owned, highly diversified, $2 billion advanced technology firm with more than 22,000 employees at 300 offices worldwide. The SAIC Health Care Technology Sector is headquartered in La Jolla, California, and Falls Church, Virginia, and has 1,600 employees at 105 sites worldwide.

Mr. Roberts joined SAIC in 1994 and serves in a senior management position advising senior managers on vital planning issues including federal acquisition, health care, appropriations and other financial issues involving the legislative and executive branches of the Federal Government.

Before joining SAIC, Mr. Roberts spent 13 years with the Federal Government. He began his federal career as an intern on the Senate Subcommittee on the Handicapped. He then worked for the United States Air Force Comptroller where he advanced in a number of budget management positions. From 1987 to 1989, he served as the Deputy Chief of Budget for the Headquarters, United States Air Forces Europe at Ramstein Air Base, Germany. From 1990 to 1993, Mr. Roberts served as a professional staff member on the House Appropriations Defense Subcommittee where he served as the staff advisor for the following programs totalling $50 billion: medical, military and civilian personnel, information technology, environmental cleanup, and defense agencies. He is regarded as a national expert on defense health care and automation issues and was awarded the Federal Leadership Award in 1992 and the Top 100 Automation Expert Award in 1994.

Mr. Roberts is single and active in numerous civic activities in the Commonwealth of Virginia. He is a 1982 graduate of The American University in Washington, D.C., and a 1985 graduate of the Department of Defense Graduate Level Financial Management Program. In 1985, he completed Squadron Officer School and in 1989 he completed Air Command and Staff College.

Senator STEVENS. Thank you very much. It is nice to see you over on our side here, and I do thank you for your work on that demonstration last week. It was very interesting.

As I told that group, we live it in Alaska, so I am glad to see the rest of the country catching up with us.

Mr. ROBERTS. Thank you, Mr. Chairman.

On a personal note, I visited your State 2 weeks ago for my second time, and I had a wonderful trip up the inside passage and up through to Anchorage, and I took my parents for their 40th wedding anniversary.

Senator STEVENS. Good. Good. Thank you very much.

Mr. ROBERTS. Thank you, Mr. Chairman.

STATEMENT OF M. SGT. MICHAEL P. CLINE (RET), EXECUTIVE DIRECTOR, ENLISTED ASSOCIATION OF THE NATIONAL GUARD OF THE UNITED STATES [EANGUS]

Senator STEVENS. M. Sgt. Michael Cline, executive director of the Enlisted Association of the National Guard.

Sergeant CLINE. Good afternoon, Mr. Chairman. I thank you for giving us the opportunity to present the views of the 75,000 men and women of the Enlisted Association of the National Guard of the United States.

The members of this association are cognizant of the support you have extended to them in the past, and have every confidence in you that you will, through your diligent and conscientious efforts, give serious consideration to the most critical shortages facing the National Guard today.

Many of these views are reflected by the Guard and Reserve Committee of the military coalition, a 24-member organization that represents over 5 million members.

Mr. Chairman, prior to coming here today I had the opportunity to have lunch with your State command sergeant major from the great State of Alaska, and he asked me to extend his gratitude to you for the support that you have given the Alaska Army National Guard in the past.

I have outlined in my written testimony the shortfalls in the President's budget submission, and also those from the House Appropriations Committee, Mr. Chairman, and I will not reflect on those at this time.

One point that has come to our attention, Mr. Chairman, is section 412 of the Senate Armed Service's Committee's bill marked the Army National Guard AGR strength for fiscal year 1997 at 22,798, as does section 412 of the House National Security Committee bill. Both reflect 147 Active Guard Reserve discrepancies between the Office of the Secretary of Defense, the President's budget submission, and the fiscal year 1997 Army Guard budget estimates.

The OSD program budget decision recommending transfer of the operational support airlift for the Air Force erroneously reduced AGR's by 484, 242 in fiscal year 1997. The program budget reductions in fiscal year 1997 should have been 242, and exceeded the number approved to accomplish the operational support airlift.

The original Presidential budget AGR recommendation was 23,040, this minus an additional decrement of 95 AGR's, one-half the 190 operational support airlift increase to be reduced in fiscal year 1997 and the other one-half was in fiscal year 1998.

This correctly places the AGR authorization in the fiscal year 1997 Army National Guard President's budget at 22,945. However, OSD President's budget submission was 22,798, an additional decrement of 147, the entire 242 reduction for the OSA in fiscal year 1997.

Assimilation of the unprogrammed additional reductions of 147 AGR's is paramount to the equivalent loss of nearly five battalions worth of full-time personnel for unit support of the Army National Guard's highest priority units. In addition, this will result in an unfinanced requirement of an additional $8 million for transition benefits, and this urges the reinstatement of the 147 AGR authorizations for fiscal year 1997.

I would like to speak a moment, Mr. Chairman, about the reserve component automation system. There is an urgent need for automated information management methods that will improve unit administration and training in the Army National Guard, the quality of planning, and speed mobilization efforts by the Reserve components.

The Reserve component automation system, ARCS, which is being developed and funded under the direction of the National Guard Bureau, is the answer to these pressing concerns, yet its development is being hampered by funding constraints. The current funding profile does not allow for completion of fielding the ARCS infrastructure until the year 2002.

Units that currently have ARCS deployed and were called up for operations in Haiti or Bosnia were able to mobilize units in one-third of the time that it took in Operations Desert Shield and Desert Storm, thereby proving the enhancement to the ARCS.

I would like to mention, Mr. Chairman, about the health care concerning the debate over defense appropriations in the House. The chairman of the National Security Appropriations Subcommittee, Chairman Bill Young of Florida, agreed to consider a demonstration project as previously mentioned by Ms. Sydney Hickey of NMFA, and we support providing that provision.

PREPARED STATEMENT

In closing, Mr. Chairman, we believe that the Guard could play a vital role in the Junior ROTC Program and the ROTC Program in the future, and I would like to thank you, Mr. Chairman and members of the committee, for the opportunity to provide testimony on the fiscal year 1997 funding requirements for the Army and Air National Guard.

Senator STEVENS. Thank you very much. I agree with Bill Young, too. We will see if we can work it out in conference.

Sergeant CLINE. Thank you.

[The statement follows:]

PREPARED STATEMENT OF MICHAEL P. CLINE

Mr. Chairman and distinguished members of the Defense Subcommittee of the Senate Appropriations Committee, I am honored to have this opportunity to present the views of the 75,000 men and women of the Enlisted Association of the National Guard of the United States (EANGUS). The members of this association are cognizant of the support you have extended to them in the past and have every confidence in you that you will, through your diligent and conscientious efforts, give serious consideration to the most critical shortages facing the National Guard today.

As the draw down of the active force continues, the National Guard is being called upon even more to provide peace time support and combat ready forces for contingencies around the world; shortages in specific areas are becoming acute. While we assert that the use of the National Guard is the most cost-effective means of implementing a strong national defense strategy during these fiscally constrained times, we also believe we need to have adequate funds to do so. This may seem somewhat of a paradox, but it is our view that in order to satisfy our long range defense requirements and leaner funding mandates, prudent allocation of funds today for shortfalls in the Guard will transform into a wise investment in the future and taxpayers will see the cost-effectiveness of the Guard come to fruition.

The National Guard can be extremely proud of its historical roots and dedicated service to our nation that spans nearly 360 years. The Guard has endured because of its long list of accomplishments, its commitment to preserving freedom and its indomitable esprit de corps.

The Guard has been successfully involved in every major conflict, which is more than testament to its raison d'etre than its most ardent detractors would like people to believe. With few exceptions, amid upheavals and the continued challenges of this period of transition, the National Guard has surpassed expectations in mission after mission they have been tasked with.

Currently, over one thousand members of the Guard are serving in Operation Joint Endeavor while simultaneously other Guard units are involved in the Deny Flight mission over Iraq. More than seventy thousand soldiers and airmen were activated for Operation Desert Storm/Desert Shield. Yet the National Guard continued in its dual role and fulfilled its state missions at home, providing emergency relief during times of natural disasters and their counterdrug missions.

The ever increasing involvement of the Guard in external as well as internal missions has led to critical shortfalls in level of funding in several areas. These shortages, if left under funded, could have a harmful impact on the ability of the National Guard to properly sustain expanding requirements for worldwide support.

The EANGUS has identified eight areas that it feels should take precedence in considering funding priorities that would most benefit the Guard in meeting its requirements to provide and maintain a high level of combat readiness and operational support to the active components. These three areas are: force structure, equipment modernization and training.

ARMY NATIONAL GUARD

The Army National Guard (ARNG) has recognized shortfalls in funding for personnel, training and operations that will very likely have an increasingly detrimental effect on training and therefore, readiness. For fiscal year 1997, there is a $132 million shortage in the Personnel Account on the President's Budget submission. This shortage can be further broken down:

President's Budget

Area of Deficit	*Millions*
Initial skills and training	$23
MOS training	21
Career development training	49
Management support	8
Exercises	7
Operational training	5
Mobilization exercises	3

In addition, Initial Entry Training, which is funded at only 90 percent of requirement, has a shortfall of $16 million. This funding is crucial to support non-prior service accessions essential to maintaining force strength. Even with the House Appropriations mark of $3,279,393 there still exists a shortfall of $94,607,000 in the Personnel Account.

Section 412 of the SASC bill marked ARNG AGR strength for fiscal year 1997 at 22,798 as does Section 412 of the HNSC bill. Both reflect a 147 AGR discrepancy between the Office of Secretary of Defense, President's Budget submission and the fiscal year 1997 ARNG Budget Estimates.

The OSD Program Budget Decision 854, recommending transfer of the Operational Support Airlift (OSA) to the Air Force, erroneously reduced AGR's by 484 (242 in fiscal year 1997). The Program Budget reduction in fiscal year 1997, –242, exceeded the number approved to accomplish the Operational Support Airlift (OSA) mission when transferred.

The original Presidential Budget AGR authorization was 23,040. This, minus an additional decrement of 95 AGR's. Half of the 190 Operational Support Airlift increase to be reduced in fiscal year 1997, half in fiscal year 1998. This correctly places the AGR authorization in the fiscal year 1997 ARNG Presidents Budget at 22,945. However, OSD President's Budget submission was 22,798; an additional decrement of 147, the entire 242 reduction for OSA in fiscal year 1997.

Assimilation of the unprogrammed additional reduction of 147 AGR's is tantamount to the equivalent loss of nearly five battalions worth of full time personnel for unit support of the ARNG highest priority units. In addition, this will result in an unfinanced requirement of an additional eight million dollars for Transition Benefits. EANGUS urges reinstatement of the 147 AGR authorizations for fiscal year 1997.

In the ARNG Operations and Maintenance Account there is a total $260 million shortfall across the following areas in the President's Budget submission:

President's Budget

Area of Deficit	*Millions*
Readiness training requirements	$70
Depot maintenance	38
Base operations	101
Environmental requirements	33
Title XI Program	15
BRAC	3

In the area of Readiness Training Requirements, Ground OPTEMPO is only funded at 63 percent of requirement and the Flying Hour Program at 60 percent; the $70 million would bring units up to 72 percent and 71 percent, respectively. The funds for Depot Maintenance would enable the ARNG to maintain war fighting equipment at minimum tiered readiness levels. Allocations for Base Operations would bring the current 43 percent of requirement up to 80 percent to cover basic quality of life necessities and maintenance of deteriorating facilities. Environmental Requirements include $17 million for out-of-compliance projects in 46 states/territories, $11 million to initiate clean up of 201 contaminated sites and $5 million for clean up of 106 underground storage tanks. Title XI Program funds are for the congressionally established medical and dental readiness programs of early deploying personnel. And finally, BRAC Requirements funding is for the preparation of two enclaves for Guard and Reserve operations at posts designated for closure under BRAC. The House increased OPTEMPO by an additional $50 million but it still has a critical shortage of $20 million in order to bring it up to 71 percent of requirement.

ARNG Military Construction

The HAC has expressed its discontent over the continuing poor execution rates for the military construction programs of the Reserve components. I would like to respectfully submit that this situation has evolved due to some extenuating circumstances that may not be readily apparent at first glance. For instance, changes in locations of units has hampered the process. In addition, with the realities of downsizing, states have not been able to meet their budget requirements.

The fiscal year 1997 Military Construction Account contains no funding for major construction projects in the ARNG, only a minimal amount of $5.5 million for minor construction and $2.1 million for planning and design. An increasing portion of the day-to-day operational costs for National Guard armories is required to support federal missions. Many states pay all the operations and maintenance costs for these armories. With the increase in federal missions, it has become urgent that the federal government bear a fair share of these costs for the states.

ARNG force structure

Although stable force structure is a top priority for the ARNG, it is, nonetheless slated for modification in order to reduce the Army's critical shortfall in Combat Support and Combat Service (CS/CSS) units. This is to be accomplished through a phased approach, intended to minimize any upheaval within the Total Army structure. Funding requirements associated with this conversion will not be available until next year. Therefore, EANGUS requests no additional funding at this time but respectfully requests the current force structure be maintained at its present level until definitive requirements of the proposed ARNG combat force redesign are identified, validated and included in the Department of Defense program and budget.

The Enlisted Association of the National Guard urges your support of the proposed plan to convert a portion of the ARNG's combat structure to CS/CSS. This will help ensure mission assignments and the force levels established in Defense Planning Guidance, the Bottom-up Review and Off-site Agreement are adhered to.

AIR NATIONAL GUARD

The Air National Guard (ANG) is also confronted with funding shortages in critical areas while at the same time their missions are being increased. Recently, ANG missions included support in southwest Asia, participation in Provide Promise involving C–130 airlift units (the longest ongoing airlift in history) and support of the

Bosnia peace effort. In reality, the Air National Guard will continue to see an increase in their participation in air refueling and airlift, yet are faced with a programmed reduction in the size of its general purpose fighter units and airlift units. In addition, their Military Personnel Account is critically under funded. Their ability to train, modernize and respond to worldwide contingencies in support of the Air Force is threatened by such crucial shortages.

As a proven, cost-effective means of maintaining Total Air Force capability within the constraints of dwindling defense funds, the identified shortfalls in level of funding should be seriously addressed and remedied.

The Air National Guard Military Personnel Account is currently under funded by $9.1 million. This shortfall, based on the President's Budget, includes:

President's Budget

Area of deficit	*Millions*
Pay and allowance for enlisted personnel	$4.6
Special training program	4.5

In the ANG Operations and Maintenance Account there was a shortfall of $24 million which includes:

President's Budget

Area of deficit	*Millions*
Flying Hour Program	$4
Real property maintenance	20

The Flying Hour Program funds are needed to avert a serious shortage in the A–10 Training Program and the funds for Real Property Maintenance is just enough to maintain the same level of maintenance and repair projects, the backlog of which remains over $465 million.

ANG Military construction

The ANG fiscal year 1997 Military Construction Budget contains $75.4 million; $4.1 million to go to minor construction, $7.7 million for planning and design, and $63.6 million for major construction projects. These requested funds are minimal compared to the enormously detrimental impact that such shortages would incur. The Air National Guard has proven itself mission after mission, side-by-side with the Air Force.

ANG force structure

The EANGUS believes the ANG force structure should remain stable until such time as a new National Security Review is concluded. In addition, we feel the C–130 airlift units of 12 primary authorized aircraft (PAA) in West Virginia, Kentucky, North Carolina, Tennessee and California should be retained at the 12 PAA level and a total of $8.7 million be restored in ANG accounts. Congress is also being asked to authorize manpower increases above the budget request of 25 AGR's, 310 drill personnel and 50 military Technician positions.

The National Guard's role under the Total Force policy is substantial and requires high levels of readiness. The capability of Guard units and personnel to mobilize, deploy, integrate and operate was extensively demonstrated during Operations Desert Shield/Desert Storm. The level of full-time support manning has a direct demonstrated influence on readiness capability and is dictated by mission and equipment levels rather than end strength. Full-time support manning is the pivotal element in day-to-day unit operations in the functions of administration, personnel, supply and training preparation and in enhancing the quality of training by making inactive duty training periods and annual training more efficient and effective. A need exists for full-time spaces to support organizing and maintaining state health and dental clinics. Strong relationships have developed between the Air National Guard and the Air Force based on day-to-day operations, training exercises and combat deployment.

Over the past few years, ANG fighter units have decreased in PAA from 24 to 18 to 15 to 12. In fiscal year 1995, Congress indicated the size of ANG fighter units should not go below 15 PAA yet the fiscal year 1996 budget included a reduction from 15 to 12 PAA. Subsequently, Congress indicated that ANG units should not go below 15 PAA and provided funding to maintain units at 15 PAA through fiscal year 1996. In response, the Air Force and ANG agreed to maintain 15 PAA fighter units through fiscal year 1997 and address the issue during fiscal year 1998 POM deliberations. The Presidential Budget Directive 622, however, failed to extend 15 PAA fighter units beyond fiscal year 1996. The Air Force countered with a request to OSD to restore full-year funding in fiscal year 1997 to maintain 15 PAA. The final OSD decision on PBD 622 provided only enough funding to reduce from 15 to 12 PAA during fiscal year 1997.

The retention of 15 PAA through fiscal year 1997 requires an additional $59.3 million and supplementary manpower (249 AGR's, 576 Drill, 343 Technicians. For O&M, $57.5 million is needed over and above the President's Budget and $10.5 million in Military Personnel Account.

RESERVE COMPONENT AUTOMATION SYSTEM (RCAS)

There is an urgent need for automated information management methods that will improve unit administration, training, the quality of planning and speed mobilization efforts by the Reserve components. The Reserve Component Automation System (RCAS), which is being developed and fielded under the direction of the National Guard Bureau, is the answer to these pressing concerns. Yet its development is being hampered by funding constraints. The current funding profile does not allow for completion of fielding the RCAS infrastructure until year 2002. The Reserve components of the Army have been prohibited from purchasing interim automation equipment outside the RCAS program whereas the urgent need for such a system is growing exponentially with each new call-up.

Units that currently have RCAS deployed, and were called up for operations in Haiti or Bosnia, were able to mobilize units in a third of the time it took in Operation Desert Storm/Desert Shield thereby proving the enhancement to readiness that RCAS brings to the Army National Guard.

RCAS also assists full-time Unit Administrators in their daily duties. During a time of force reduction, when full-time manning positions are being cut, those remaining are expected to do more with less. RCAS has proven to be an asset in compensating for the shortage in manpower. Currently, the Air National Guard operates at approximately 89 percent of its authorized full-time manning force while the Army National Guard operates at approximately 65 percent of its authorized full-time manning strength.

The Enlisted Association of the National Guard of the United States respectfully requests adequate funding be provided for expediting fielding of the RCAS in order that the infrastructure can be completed by fiscal year 1999.

COUNTERDRUG MISSIONS & DEMAND REDUCTION PROGRAMS

The drug problem is considered to be one of the greatest domestic threats to national security confronting this country. The impact of illicit drugs on the population of the United States has caused more than 80,000 crack babies to be born annually with resultant medical and special education costs estimated at $800 million per year.

The National Guard represents the principle Department of Defense support conduit to law enforcement agencies for counterdrug missions. Drug interdiction and border surveillance operations are essential to the mission and require a low profile for success. The National Guard requires a tailored surveillance system configured on existing platforms to provide around-the-clock surveillance and command and control capability to operating agencies. The current inventory of Army and Air National Guard aircraft capable of providing the surveillance essential for successful interdiction is limited in quantity and is rapidly becoming non-supportable logistically.

The ultimate solution to the drug crisis is demand reduction, prevention and education. Present initiatives, and those in the planning stages, have been readily accepted and commended within the nation's school system. The expansion of National Guard demand reduction involvement is a cost effective expenditure of defense funds. EANGUS requests that funding for the sustainment of personnel and C–4 networks required for counterdrug operational missions and procurement and upgrade of equipment uniquely suited to support counterdrug interdiction and surveillance be addressed.

The results for 1995 counterdrug operations:

Cash	$292,691,536
Marijuana:	
Cultivated	1,951,687
Noncultivated	103,000,536
Processed	820,763
Cocaine	150,197
Heroin	1,631
Opium	158
Hashish	16,631

Arrests	100,816
Total	$398,733,955

In retrospect, National Guard funding for counter drug operations for 1993 was $230 million. Funding for 1996, in stark contrast, is $158 million, which meets less than 50 percent of National Guard law enforcement requests. At a minimum, $180 million in funding is needed in 1997 to support governors' state plans.

The National Guard supports law enforcement in 25 percent of all domestic marijuana eradication missions. In 1995, the Guard was involved in assisting in the seizure of 70 metric tons of cocaine (down from 120 metric tons seized in 1994), 750 kilograms of heroin and nearly 2 million cultivated marijuana plants.

HEALTH CARE

EANGUS understands that during debate on the Fiscal Year 1997 Defense Appropriations Act in the House of Representatives, the Chairman of the National Security Appropriations Subcommittee, Chairman Bill Young of Florida, agreed to consider a demonstration project allowing dual military-Medicare eligible beneficiaries the option of enrolling in FEHBP during the deliberations of the Conference Committee. We respectfully request that you, Mr. Chairman, and the members of this subcommittee, support this demonstration project as we firmly believe it is in the best interest of members of the armed forces.

In particular, we are concerned for the dual military-Medicare eligible population that are precluded from participation in the Department of Defense's new health care plan, Tricare. EANGUS supports allowing military beneficiaries the option of enrolling in the Federal Employees Health Benefits Program.

It is the Enlisted Association of the National Guard of the United States' belief that the National Guard represents the most cost-effective weapon at our disposal to defend our nation in conjunction with the active components. Its potential has barely been tapped, yet it stands ready, willing and accessible to meet our defense needs. It has become imperative to ensure that the Guard has the support to fully develop into an integral part of the Total Force. This can only be accomplished through modernization of equipment, a stable force strength and training. Short changing any one of these areas could prove fatal to the effectiveness of the National Guard and therefore the defense of our country.

For years, Army and Air National Guard units have competed with the best of their active duty counterparts and have taken top honors home to their states. The National Guard has proven, time and again, that it is an essential part of the Total Force. For nearly 360 years, in every war, the combat records of the National Guard prove that the Guard will fight and win, if, and when it again becomes necessary. As President Harry S. Truman said: "Of course, when the next real fight comes, the civilians will come forward just as they did this time, and win in spite of the Regular Army."

The Guard is your next door neighbor; s/he may be your truck driver, your lawyer, your teacher, or your member of Congress. When the National Guard is called, "America goes to war!" The Guard is family—Americans at their best! The National Guard: Protectors of freedom, defenders of peace!!

I would like to thank the Chairman and members of this committee for the opportunity to provide testimony on the fiscal year 1997 funding requirements for the Army and Air National Guard. The men and women of the Enlisted Association of the National Guard of the United States appreciate your past commitment and support in funding programs critical to their missions. In order to maximize the Guard's defense capability, I am confident you will agree that the shortfalls in military personnel and operations and maintenance need your earnest assistance and respectfully submit that the issues identified in this statement are inextricably linked to the readiness and quality of the National Guard's ability to meet our country's defense needs.

STATEMENT OF EDITH G. SMITH, CITIZEN ADVOCATE FOR DISABLED MILITARY RETIREES

Senator STEVENS. Ms. Edith Smith, citizen advocate for disabled military retirees.

Ms. SMITH. Mr. Chairman, I am Edith Smith, the wife of a disabled retired marine from Springfield, VA. I have become known as an advocate for an equal health care benefit for military beneficiaries, especially those under age 65, who have been shifted to

Medicare because of disability or end-stage renal disease. I represent no organization.

I strongly support allowing military beneficiaries the opportunity to participate in the Federal Employees' Health Benefits Program. I also believe the requirement for retired disabled military Medicare eligibles to purchase Medicare B as a condition for their eligibility for TRICARE or CHAMPUS should be removed.

Senator Stevens, as chairman of the Governmental Affairs Committee, you are the chief protector of one of the best health care benefits in the world, the Federal Employees' Health Benefits Program [FEHBP]. FEHBP provides each participant equal opportunity to choose health benefits coverage. Everyone shares the basic financial risk.

Medical costs go up, FEHBP premiums go up. Unlike military medicine, no vulnerable disabled or elderly beneficiaries are cast out due to budget constraints. Military medical care delivered on the availability of space and personnel is not a legitimate health care benefit.

DOD testified before this committee they spent $1.4 billion last year to provide medical care to Medicare eligibles. An estimated 230,000 beneficiaries received this care, leaving nearly 1 million Medicare eligibles with no military benefit.

Using simple mathematics, this $1.4 billion could provide the current Government FEHBP contribution for over 850,000 military retirees in your premium-based cost-sharing program.

Legislation introduced by Representative Moran and Senator John Warner would allow Medicare-eligible military retirees and their families the option to participate in the Federal Employees' Health Benefits Program. I believe this legislation provides a legitimate health benefit for military retirees, and I urge you to support this legislation.

I further believe all CHAMPUS-eligible beneficiaries should have the option to participate in FEHBP. To illustrate the inequities of the military medical system, I would like to briefly explain the real-life situation of a disabled Air Force retiree.

Last week, I received a phone call from this military retiree, who explained with great difficulty she was severely disabled and found herself without any retired military health benefit.

Senator STEVENS. Could I stop you just a minute? I am going to have to tell them I am going to be 1 minute late. Thank you.

[Pause.]

Senator STEVENS. Yes, ma'am. Thank you.

Ms. SMITH. Thank you. This military retiree has multiple medical problems, including multiple sclerosis and asthma, and she is wheelchair-bound.

Like all disabled retirees, she was not notified that CHAMPUS was terminated as her retirement benefit when disability qualified her for Medicare in 1987. Last month, the local military hospital formally disengaged her from primary care management and for specialty care.

Since 1987, she has been denied her retired CHAMPUS eligibility until she enrolls in Medicare B at an additional monthly cost to her of $75. The military hospital has no legal obligation to provide a health care benefit to other than active duty members. Had this military retiree been an Air Force civilian retiree, her FEHBP coverage could not have involuntarily changed.

The Department of Defense provides all its civilian employees and retirees the opportunity to participate in a comprehensive health benefit program regardless of age or health status, and regardless of whether they participate in Medicare B.

PREPARED STATEMENT

Mr. Chairman, I respectfully ask that military beneficiaries be offered the same opportunity.

Thank you very much, and I am pleased to answer any questions.

[The statement follows:]

Prepared Statement of Edith G. Smith

My name is Edith Smith from Springfield, Virginia. I am pleased and honored to present this statement to the Members of Defense Subcommittee of The Senate Appropriations Committee. I would like to discuss military health care issues affecting Medicare-eligible beneficiaries under age 65. This small group of military retired beneficiaries are unfairly cut off from equal eligibility for the Military Health Services System, and cost shifted to the lesser benefits of Medicare, simply because they suffer the misfortune of severe disability or End Stage Renal Disease.

Complex issues of concern to "Medicare-eligibles" under age 65 center on an unfair requirement for the disabled to purchase Medicare B in order to enroll in TRICARE PRIME or to use CHAMPUS as second payer to Medicare benefits. Federal Civilian annuitants have the option to participate in Medicare Part B. To deny equal health benefits to military retirees under age 65 because of disability should be considered a discriminatory use of federal funds paid through the CHAMPUS program and thus, prohibited by Public Law 93–112, Section 504, (The Rehabilitation Act of 1973.)

I consider myself to be a traditional military wife and I represent no organization. My husband, Lt. Col. Vincent M. Smith, USMC, Ret., and I became involved in this advocacy work when his CHAMPUS entitlement was terminated in 1989, basically because he became too sick to work. He was determined to be Social Security disabled in February, 1987, when he suffered an unexpected loss of health (and income) at age 49. Twenty-nine months later, the Department of Defense switched him from CHAMPUS to the lesser benefits of Medicare. He lost 14 years of his retired entitlement to CHAMPUS. This unjust loss of the earned CHAMPUS benefit has led us to join others in working to correct this inequity for all military beneficiaries, both active and retired, who are at risk of disability or kidney disease.

In 1991, Congress quickly attempted to correct this unjust, and I believe, unintended situation by restoring CHAMPUS as second payer to Medicare. Congressman "Bill" Young, FLA, and Senator John McCain, AZ, introduced legislation with the intention of restoring all health benefits to retired military beneficiaries that they would have had, but lost prematurely because they were disabled. All retired military beneficiaries who are or may become Medicare-eligible under age 65 are most grateful to The Congress for this provision in the Fiscal Year 1992 Defense Authorization and Defense Appropriation Acts.

However, as the DOD has implemented CHAMPUS as second payer to Medicare, beneficiaries experienced numerous unanticipated problems. The implementation was "budget driven" rather than using the guidelines for dual coverage situations already in place for retirees who carry other health insurance. It was necessary for Congress to pass corrective legislation for the next three years in order that the Med/CHAMP dual coverage payment method would be applied using the traditional coordination of benefits that is used for all others. (Attachment #1.)

Problems with the existing dual Medicare/CHAMPUS coverage for the disabled Medicare-eligibles are:

1. *Medicare part B requirement for disabled retirees.*—Disabled military beneficiaries who receive dual coverage under Medicare and CHAMPUS are required to participate in Medicare Part B in order to receive their earned CHAMPUS or TRICARE benefits. Federal civilian retirees with dual coverage under Medicare and FEHBP have the option to purchase Medicare Part B. If the civilian retiree chooses to participate in Medicare B, The Office of Personnel Management rewards this de-

cision by requiring the FEHBP plans to waive all deductibles and copays. Disabled military retirees receive no such support.

2. *Overseas coverage.*—Medicare eligible retirees under 65 who live outside the United States are required to purchase Medicare Part B ($42.50 mo.) in order to use CHAMPUS benefits. To apply this requirement outside CONUS is unconscionable as Medicare will not make payments on foreign soil. Federal civilian retirees over 65 living overseas use their FEHB plan with no Medicare B requirement.

3. *CHAMPUS and Medicare are different Federal programs.*—CHAMPUS operates on a fiscal year basis under criteria and covered services designed for more healthy persons under age 65. CHAMPUS is an employer-provided major medical comprehensive health benefit originally designed to equal the benefits of the Federal Employees Hi-Option Programs and to supplement the direct care system of the military. CHAMPUS was intended to be premium free in lieu of a reduced monthly military paycheck and a $7,500 annual catastrophic cap. Medicare operates on a calendar year basis and was originally designed to serve only the "over 65" population. The Medicare program is funded with contributions from both the employer and the employee. Medicare was not designed to be as comprehensive as employer provided coverage, it was intended to assist with medical expenses in old age.

4. *CHAMPUS is not a Medicare supplement.*—The new CHAMPUS "115 percent rule" negates second payer CHAMPUS payment when the Medicare allowed amount is greater than the amount CHAMPUS would have paid, leaving the patient with unexpected out of pocket costs. A true medigap supplemental policy is designed to pay the amount defined as the patient's responsibility. For Medicare covered services where the allowed amounts are sometimes higher than CHAMPUS allowed amounts, CHAMPUS will not pay the patient's deductible or Medicare cost share, leaving the hospital or provider who thought they accepted a patient under Medicare standards suddenly faced with reduced payments that is a disappointment to both the provider and the patient.

5. *Medicare part A: Accepting assignment.*—Hospitals who accept federal funding assistance are required to accept Medicare assignment. Hospitals accepting Medicare assignment also are required to accept CHAMPUS assignment. However, there are complex criteria and rules (including the new "115 percent rule") that may prevent CHAMPUS from paying the Medicare Part A deductible of $716. If the provider accepting Medicare is not also an authorized CHAMPUS provider, then CHAMPUS will not make payments as second payer. Medicare has no catastrophic cap, therefore, we believe it is prudent to purchase a Medicare supplement in order to have more dependable financial protection. Military Associations generally do not sell supplements to disabled persons. (Attachment #2.)

6. *Medicare Part B: Accepting assignment.*—Physicians and outpatient providers are not required by law to accept either Medicare or CHAMPUS patients. Even though the physician may be an authorized provider, it is his choice to "accept assignment" on a case by case basis. The health care provider may "accept assignment" from some and not others * * * "Freedom to choose" is the American way!

7. *Preexisting conditions.*—The active duty member who is medically retired probably will not be enrolled in a CHAMPUS supplement sold by military associations without pre-existing condition exclusions. The Retired Officer's Association policy waives pre-existing conditions to retirees switching from a private employer provided health insurance to their Mediplus supplement, but does not waive pre-existing condition exclusions for an active duty member retiring and switching from military medicine to CHAMPUS. Few, if any, association supplemental policies will accept a person with a disabling condition (Attachment #2). Federal law requires Medicare supplements to enroll individuals without pre-existing conditions only at age 65. When a disabled Federal civilian retiree is switched to Medicare, there are no pre-existing exclusions, nor is health status a subject of consideration when applying to change plans in the FEHBP. Disabled individuals are included with and treated like all other civilian retirees. Congress and The Office of Personnel Management has successfully worked to insure that no civilian Federal retiree suffers a discriminatory loss of health coverage because of age or health status. DOD does not have oversight or control of supplemental insurance sold by Associations to military retirees.

8. *Insurance risk pools.*—Supplemental policies sold by our military associations are community based risk pools by age and state. Premiums for these policies vary greatly with Associations, often the enlisted groups have the more expensive plans. Prescription coverage with Medicare supplements is not generally offered because of the high premium costs rated with smaller community based risk pools. Current Senate and House FEHBP Bills include a provision for a separate trial risk pool for retired military beneficiaries which would seem to be an improvement over the insurance risk pools now available to them.

TRICARE PRIME ENROLLMENT FOR MEDICARE ELIGIBLES UNDER 65

REMOVAL OF MEDICARE PART B REQUIREMENT

I ask The Committee to please support the removal of the mandated requirement to purchase Medicare Part B as an unnecessary and unfair condition to enroll in TRICARE PRIME for the Medicare-eligible beneficiary. (See letter from the Assistant Secretary of Defense, Attachment #3.)

DOD informational materials on TRICARE PRIME state that "Medicare-eligibles" may not enroll in PRIME at this time. "Medicare-eligibles" unable to enroll are over age 65, "Medicare-eligibles" under age 65 are eligible for TRICARE PRIME enrollment. TRICARE PRIME charts describing eligibility categories, enrollment fees, and copayments must be required to include the disabled "Medicare-eligibles". All beneficiaries are equally deserving of full information about TRICARE to include their situation if they were to suffer severe disability. DOD's explanation that the disabled group is too small or the dual coverage too complex to justify space in the marketing materials is not reasonable.

If the disabled retiree learns of his eligibility for PRIME, he is financially penalized with the requirement to purchase Medicare B ($42.50 mo.) as the condition to enroll in TRICARE PRIME, then he is assessed the normal enrollment fee ($230 yr.) even though his CHAMPUS is now a second payer, not a normal benefit. Additionally, he is restricted from freely using all providers in the PRIME network. While the contractors must "attempt" to sign up providers who accept both CHAMPUS and Medicare, PRIME providers are only required to accept CHAMPUS under the PRIME contract.

The disabled military retiree may choose to sign up in the PRIME network to free himself of paperwork that he may not be well enough to accomplish, or to save the 25 percent cost share for CHAMPUS prescription drugs and other preventive programs not offered by standard CHAMPUS. The disabled military beneficiary may desire to join his fellow retirees in the military health program with merely a sense of belonging, remaining in the "military mainstream" with his more healthy retired colleagues or as a matter of convenience. Whatever his reason, The DOD must not seek to rid their programs of retirees because of age or health status as a way to meet budget targets.

FEDERAL EMPLOYEES HEALTH BENEFITS—A VOLUNTARY OPTION FOR MILITARY BENEFICIARIES

One Senate and 3 house bills have been introduced before the 104th Congress that will allow certain retired military beneficiaries the option to participate in the Federal Employees Health Benefits Program (FEHBP). Because Military retirees are the only Federal retirees whose employer provided health coverage ends at age 65, we appreciate these initiatives. This legislation will "honor our commitment" to provide lifetime medical care to those who serve our country through military service. As of now, there are four bills addressing this simple and most reasonable alternative source for a health benefit provided to the military. S. 1651 by Senator John Warner, R–VA; H.R. 3012 by Congressman James P. Moran, D–VA; H.R. 2442 by Congressman Ed Pastor, D–VA; H.R. 3368 by Congressman Cliff Sterns, R–FLA.

These bills offer the optional participation in the successful FEHB program to certain military retired beneficiaries. This legislation eliminates a gap in medical coverage especially for Medicare-eligible military retirees. It does not interfere the TRICARE program, nor does it establish a new, untested insurance program. In my opinion this is the best solution for retirees who are unable to access the free, "Space Available" care in a military facility.

Currently the DOD provides the figure of 230,000 Medicare-eligibles who are able to access "free" medical care in Military treatment facilities at a cost to DOD of more than $1.2 billion. (Attachment #4.) The remaining Medicare population (over 75 percent) receive no employer provided benefit. Using DOD's own figure of $1.2 billion to provide a $1,599.26 government share of an FEHBP premium, about 782,500 Medicare-eligibles could participate in a popular FEHBP insurance program on a shared cost basis. Additional funding to secure an employer provided health benefit for all military beneficiaries is needed for about 400,000 retirees (less those "Medicare-eligibles" that participate in other programs.) Congress mandates over $4 billion annually (1993) for the government contribution to the FEHB program for federal civilian annuitants. Has Congress abandoned this same responsibility to provide a medical benefit for military retirees blaming budget constraints?

Some are calling this legislation "FEHBP–65." The use of this acronym could lead to the misperception that "Medicare-eligibles" under 65 are not included in the legislation. An inadvertent exclusion of "Medicare-eligibles" under 65 might occur as this legislation goes forth. When this Committee considers FEHBP legislation, I ask that you protect the inclusion of "Medicare-eligibles" under age 65 for the following reason: CHAMPUS as second payer to Medicare does not provide the dual coverage situation envisioned and intended by Congress in a manner similar to FEHBP "fee for service" plans when they are second payer to Medicare.

Conclusions that support the passage of FEHBP legislation as a voluntary option of retired military "medicare-eligibles" are:

1. FEHBP policies generally contain million dollar lifetime limits. When that limit is reached, the annuitant can go to another plan and begin again. CHAMPUS boasts no lifetime dollar limits, however, when the CHAMPUS beneficiary gets too sick to return to an "unprotected" environment, CHAMPUS payments are terminated, usually retroactively.
2. FEHBP has no pre-existing exclusions.
3. FEHBP provides more comprehensive coverage at lower beneficiary costs than the coverage provided by military association supplemental policies.
4. Dual Medicare/CHAMPUS beneficiaries need two supplements for adequate protection. One FEHBP Medicare supplemental policy affords better, more seamless coverage, less paperwork, and lower premiums. The opportunity to join a well regulated FEHBP HMO is also available.
5. Medicare Part B participation is not a mandated condition for using benefits in the FEHBP plan. It is a voluntary choice by the retiree.
6. Federal civilian retirees over age 65 may use their FEHBP health coverage anywhere in the world.

We thank Congressmen Moran, VA, Pastor, AZ, and Sterns, FLA, and Senator Warner, VA, for introducing legislation to allow military retirees a voluntary alternative for health coverage. This legislation offers retired military an equal opportunity for health coverage that is provided to all other Federal employees or retirees. It also "Honors our Commitment" for the promise of lifetime military healthcare. This legislation does not deny military retirees the access to traditional "Space A" care in a military hospital. Please make every effort to provide an opportunity for equitable, accessible, affordable, and quality health coverage for all military retirees.

MEDICARE SUBVENTION

The Dept. of Defense has consistently testified that Medicare Subvention will provide the solution for the "Medicare-eligible" dilemma. There is a lack of solid information provided to beneficiaries in order for them to have well-informed opinions on this complex health benefit alternative. Congressman have co-sponsored "Subvention" legislation without realizing that they need a military hospital in their district for the legislation to benefit their constituents. Retirees say they ce datacompdesire "Subvention," but do not know if it will be an HMO type plan * * * or business as usual * * * billed on a visit by visit basis. Will it provide guaranteed comprehensive care for all who opt to use it? Will it include only the medical services currently provided by the Military facility? Will any disabled retiree be denied enrollment? How does The Department of Defense consider Medicare Subvention the solution to the dilemma for the "over 65's" when 17 states have no military facility, and 9 states have only 1 small medical facility?

SECTION 743, FISCAL YEAR 1996 DEFENSE AUTHORIZATION ACT—WAIVER OF CHAMPUS PAYMENTS RECOUPMENT

Military "Medicare eligible" retired beneficiaries who, through no fault of their own, were unaware of the termination of their retired entitlement to CHAMPUS wish to thank the Members of Congress for their work to include Sec. 743. "Waiver of Collection of Payments due from certain persons unaware of loss of CHAMPUS eligibility."

This provision is a fitting tribute to the efforts and memory of Sgt. Roy E. Johnson, USAF, Ret., of Norcross, Georgia. Sgt. Johnson suffered an untimely cardiac arrest in March, 1995, while working to correct this injustice to severely disabled military retirees.

The DOD implementation of this provision should include the waiver of collection of erroneous CHAMPUS payments from both the beneficiary and the medical provider. Otherwise, the provider will be required to refund the CHAMPUS program and then bill the retiree who is responsible for payment. CHAMPUS memorandum of 4 June 1973 (See attachment #5) acknowledged a need for a DOD data match with Social Security to identify disabled retired beneficiaries who became eligible for Medicare in 1972 (42 U.S.C. 1395c et seq). Although CHAMPUS regulations (DOD 6010.8–R) published 10 Jan 1977 terminated the CHAMPUS benefit for Medicare eligibles under age 65, Congressional legislation was not enacted to validate this benefit termination for disabled beneficiaries until 12 Dec 1980 (Public Law 96–513, Sec. 511). This data match, although never accomplished, would have prevented this tragic situation for so many disabled retirees.

Recommendation.—I ask the Committee to closely monitor the development of this waiver of recoupment procedure. A data match must be promptly arranged by DOD with the Social Security disability and End Stage Renal Disease rolls in order for disabled retirees to receive adequate notification of the termination of CHAMPUS and how they need to proceed with enrollment in Medicare, Part A and B.

CONCLUSION

Military retirees were promised lifetime medical care in exchange for reduced compensation and service to their country. They earned it, often at the risk of their lives, and paid for Medicare through payroll deductions. Americans believe that the Uniformed Services provide free, lifetime healthcare. Most members of the Uniformed Services perceive that they are guaranteed lifetime health care for themselves and their family members. In fact, military retirees are the only federal retirees to lose their employer provided health care benefit at age 65. DOD and the military services fund the government contribution for FEHBP for their civilian employees. Disabled military retirees under 65 are not provided a seamless health coverage similar to that provided to under 65 disabled federal civilian retirees. I ask The Defense Subcommittee to make every effort to be supportive of an equal, accessible, affordable, and quality retired health care benefit not now provided to the military retiree.

ATTACHMENT 1

Legislative changes which improved the unjust CHAMPUS benefit provided to "Medicare-eligibles" under age 65—compiled by Edith Smith.

HR 467 "CHAMPUS as second payer to Medicare" January 7, 1991, introduced by C.W. "Bill" Young, FLA, 135 co-sponsors

S. 1392 companion bill introduced on June 26, 1991, by Senators John McCain, AZ, Bob Graham, FLA, and Connie Mack, FLA

Fiscal year 1992 Defense Authorization includes provision for CHAMPUS as 2nd payer with the more austere "benefits-less-benefits" payment method. Fiscal year 1992 Defense Appropriation Bill includes CHAMPUS as second payer with coordination of benefit payment method because it was the traditional method used when CHAMPUS is second payer to all other insurances.

Fiscal year 1993 Defense Bills included "Medicare-eligibles" who had been overlooked: survivors, certain former spouses and persons with End Stage Renal Disease who are not disabled. Fiscal year 1993 Defense Appropriation Bill continued coordination of benefit payment method and provision to eliminate funding for the salaries of OASD(HA) and his immediate staff to include his General Counsel in part because of their opposition to the "CHAMPUS as second payer" bill.

Fiscal year 1994 Defense Appropriation Bill continued COB payment provision.

Fiscal year 1995 Defense Appropriations and fiscal year 1995 Defense Authorization Bill both contained language which made Coordination of benefits payment method permanent law, creating an equal method for all beneficiaries who use other primary health insurance.

Fiscal year 1996 House Authorization bill contains provision to waive recoupment of CHAMPUS payments to "Medicare-eligibles under 65" who continued to use CHAMPUS even though they were no longer eligible. DOD and DEERS have no method to notify beneficiaries under age 65 that their eligibility was terminated. When the issue arose, DOD was unaware that these disabled beneficiaries received no notification from DEERS as do the retirees at age 65 and does not oppose this legislation.

ATTACHMENT 2

LETTER FROM T.J. KILCLINE

THE RETIRED OFFICERS ASSOCIATION,
Alexandria, VA, August 5, 1992.

Mrs. EDITH G. SMITH,
Springfield, VA.

DEAR MRS. SMITH: Thank you for your July 29th letter.

We recognize that the 1991 change in Title 10, USC still leaves affected persons exposed to the CHAMPUS individual cost-share where the services are covered only by CHAMPUS [ie. prescriptions], and the person has a Medicare supplement. As you noted, this risk could be conceivably covered by a CHAMPUS supplement designed exclusively to work where CHAMPUS is second payor to Medicare.

Currently, TROA has no plans to develop this type of CHAMPUS supplement. If we were to do so, premiums likely would be extremely high in relation to benefits, considering the small number of "Medicare-eligible" disabled members, and the group's health characteristics.

Sincerely,

T.J. KILCLINE,
Vice Admiral, USN (Ret), President.

LETTER FROM GERALD M. KIRKE

KIRKE-VAN ORSDEL, INC.,
Des Moines, IA, August 14, 1992.

MRS. VINCENT M. SMITH,
Springfield, VA.

DEAR MRS. SMITH: I appreciate the opportunity to address your concerns regarding CHAMPUS benefits for disabled military retirees.

The passing of the Federal law which entitles disabled military retirees under age 65 to CHAMPUS benefits, as a second payor to Medicare, offers valuable additional coverage not previously available. While I understand that this coverage does not provide for 100 percent reimbursement, it is intended to cut your cost share.

When considering the development of a CHAMPUS Supplement for disabled, retired military personnel under age 65, two factors: (1) the small number of Medicare eligible disabled members and, (2) the claims experience of these members would make premium prohibitive. In other words, the premium you would pay for this supplement in relation to benefits received would be extremely high.

For this reason, TROA and Kirke-Van Orsdel, Inc. have no plans to develop this type of CHAMPUS Supplement.

Sincerely,

GERALD M. KIRKE,
CEO.

LETTER FROM ROYAL A. JOHNSON

AMERICAN MILITARY ASSOCIATION,
Minneapolis, MN, August 14, 1992.

MR. VINCENT M. SMITH,
Springfield, VA.

DEAR MR. SMITH: Thank you for applying for CHAMPUS Supplement protection through the American Military Association. Unfortunately, the underwriter of this coverage, North American Life and Casualty Company (NALAC), has informed us that they must decline your request for coverage. This decision was based on a careful review of the Evidence of Insurability provided by you (including the accuracy of your answers to the health questions on your Enrollment Form) as well as NALAC's Underwriting Guidelines.

NALAC is not in a position to provide riders on medical conditions or charge additional premiums for higher risks. They, consequently, can only accept or decline coverage.

If you require further information concerning your declination, please send a written, signed request to The American Military Association, Fort Snelling Station, P.O. Box 76, Minneapolis, MN 55440–0076 authorizing us to release medical information to your personal physician. Be sure to provide us with the complete name and address of your physician. Information will be released promptly upon receipt of your authorization.

Please be assured that every consideration has been given your request. We appreciate your interest in this insurance program, and are sorry we cannot at this time provide you with the coverage you requested.

Sincerely,

ROYAL A. JOHNSON,
Executive Director.

LETTER FROM JEFF ROHLINGER

HEALTHCOM,
Madison, WI, August 17, 1992.

VINCENT M. SMITH,
Springfield, VA.

DEAR MR. SMITH: Thank you for applying for insurance protection with HealthCOM, underwritten by Epic Life Insurance. We appreciate your interest.

After careful evaluation of the statements made on your application, we have determined that we are unable to approve coverage to supplement your CHAMPUS benefit. Enclosed is a refund of your premium.

In compliance with your state insurance codes, it is our responsibility to notify you that you have the right to request, in writing, the specific reason or reasons for our decision within 90 business days from the date of this letter. Upon receipt of such written request, we will furnish the specific reason or reasons for our decision, directly to you, in writing within 21 business days from the date of our receipt of your written request.

Also, you have the right to access to recorded personal information and the right to request a correction, amendment or deletion of such recorded information if deemed appropriate by us and in compliance with your state insurance code.

If you have further questions about HealthCOM, please contact us at 1–800–388–1006. Thank you.

Sincerely,

JEFF ROHLINGER,
HealthCOM Underwriter.

ATTACHMENT 3

LETTER FROM JOHN M. DEUTCH

DEPARTMENT OF DEFENSE,
THE DEPUTY SECRETARY OF DEFENSE,
Washington, DC, January 30, 1995.

MRS. VINCENT M. SMITH,
Springfield, VA.

DEAR MRS. SMITH: This is in reply to your letter of November 22, 1994 regarding eligibility of disabled military retired beneficiaries for TRICARE Prime, the Department's managed health care program. I am pleased to inform you that such beneficiaries are indeed eligible for enrollment in TRICARE Prime, just as are other CHAMPUS-eligible military retirees, their family members, and survivors.

Based on further conversations between you and my staff, it appears that your concerns extend beyond the specific question raised in your letter to me. First, you would like the Department's support in eliminating the statutory provision which requires disabled retirees to pay the Medicare Part B premium, which amounts to several hundred dollars per year, as a condition of retaining their CHAMPUS eligibility. Second, you would like the Department to waive recoupment of CHAMPUS benefits paid in error to some disabled retirees—those who were ineligible for CHAMPUS because they had not enrolled in Medicare Part B.

In response to your concerns, the Department will consider preparation of a legislative proposal to eliminate the requirement for enrollment in Medicare Part B as a condition of continued CHAMPUS eligibility for disabled retirees. Regarding recoupments, we are required by statute to seek recoupments of monies paid in error, but we are preparing a legislative change to permit waiver of recoupments for disabled retirees.

I hope this information is useful to you. The Department is committed to doing all it can to support its beneficiaries who are most in need.

Sincerely,

JOHN M. DEUTCH,
Deputy Secretary of Defense.

ATTACHMENT 4

QUESTIONS FOR THE RECORD

MEDICAL REIMBURSEMENT

Question 29. Does the Department of Defense still support Medicare reimbursement? If so, briefly describe your proposal for how this might be accomplished.

Answer. The Department of Defense considers the attainment of reimbursement from the Health Care Financing Administration (HCFA) for health care services provided by DOD to Medicare eligible military beneficiaries as a priority objective. Of the approximate 1.1 million DOD beneficiaries who are currently eligible for Medicare some 230,000 (21 percent) regularly use the military health system. It is estimated that delivering health care services to this population costs DOD about $1.2 billion a year. Unlike civilian health plans and providers, DOD is unable to obtain reimbursement from Medicare for care provided to its Medicare-eligible beneficiaries. The Department seeks fixed, per person payments from Medicare for those Medicare-eligibles who choose to enroll in the Department's military health maintenance organization (HMO) option, TRICARE Prime. This prospective, capitated payment to DOD would be similar to the manner which HCFA reimburses eligible HMO's under the Medicare Risk Contract Program. If all of these estimated 230,000 beneficiaries were to enroll in TRICARE Prime, it is projected that Medicare would reimburse DOD approximately $900 million to $1 billion a year.

Question 30: What is the Administration's position on Medicare reimbursement?

Answer. Secretary Perry was personally involved last year in obtaining the Administration's endorsement of Medicare reimbursement as part of the national health care reform debate. The President fully supported the Department's efforts to include Medicare payments to DOD in the Health Security Act.

Question 31. How would Medicare reimbursement benefit the Department of Defense?

Answer. If DOD is able to receive reimbursement from HCFA for health care services provided to enrolled Medicare-eligible, military beneficiaries, the Department could then manage the care of beneficiaries over 65 in the same way as beneficiaries under the age of 65. Medicare-eligibles would be offered the opportunity to enroll in TRICARE Prime and all enrolled beneficiaries would be entitled to priority access within the MTF, to the extent that TRICARE lowers the cost of delivering health care. DOD and the Medicare system will both gain. Since out-of-pocket costs for enrolled beneficiaries over 65 will be lower under TRICARE than under Medicare, it is anticipated that more DOD beneficiaries will choose to enroll in TRICARE. Therefore, the Medicare system should realize savings in comparison to the higher costs associated with the usual fee-for-service reimbursement. In addition, the health care services provided to this older population are essential to the readiness training required to maintain the medical skills our personnel will need to support contingency operations.

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

MEDICARE PAYMENTS TO DOD

Issues

Of the approximately 1.1 million DOD beneficiaries who are currently eligible for Medicare, some 230,000 (21 percent) regularly use the military health care system. It is estimated that delivering health care services to this population costs DOD about $1.2 billion a year. Unlike civilian health plans and providers, DOD is unable to seek fixed, per person payments from Medicare for those Medicare-eligible beneficiaries who choose to enroll in the Department's military health plan, TRICARE. Capitated payments from Medicare are integral to the success of TRICARE, because without such payments DOD will not have funds sufficient to manage the care of beneficiaries age 65 and older.

Background

Currently, about 1.1 million Americans age 65 and older are beneficiaries not only of Medicare, but also of the military health care system. This number is projected to expand roughly 30 percent by 1999, to a total of 1.4 million beneficiaries age 65 or older. These beneficiaries do not have a CHAMPUS entitlement, and they are eligible for care in military treatment facilities (MTF's) only on a space available basis. These beneficiaries obtain their health care services either from MTF's or they use their Medicare alternatives.

If all of these estimated 230,000 beneficiaries were to enroll in TRICARE, it is projected that Medicare would reimburse DOD approximately $900 million to $1 billion a year. It will relieve an obligation borne by DOD to subsidize HHS and would free up funds for the Department's use. The only decrement in the budget is in the first year and would be fully offset by Medicare payments directly to DOD. The Department would also receive Medicare payments for any additional Medicare-eligibles who enroll in TRICARE.

Consequences

1. *No Medicare reimbursements to DOD.*—Without such payments, Medicare-eligible beneficiaries would continue to access MTF care only on a space available basis. With the probable downsizing of the military medical system, mandatory enrollment in TRICARE for active duty personnel, and a high demand for enrollment expected for other eligible beneficiaries, the opportunity for beneficiaries over 65 to access MTF care would be extremely limited. The consequence would create an increasingly serious problem for retirees and their families and would be a significant issue for the many organizations who represent them.

2. *DOD receives Medicare payments for enrolled beneficiaries over 65.*—DOD could manage the care of beneficiaries over 65 in the same way as beneficiaries under the age of 65. All enrolled beneficiaries would be entitled to priority access with the MTF. The current CHAMPUS and Medicare "ghosts", who drive up MTF costs by selectively using the MTF system, would no longer receive care without enrollment, although the enrollment process would provide for several years of transition. To the extent that TRICARE health plans lower the cost of delivering health care, DOD will gain. In addition, DOD's direct medical appropriations would be reduced by approximately $900 million to $1 billion and out-of-pocket costs for enrolled beneficiaries over 65 are expected to be lower under TRICARE military health plans than under Medicare. Beneficiary organizations view the attainment of Medicare payments to DOD as one of their most important issues.

THE MILITARY COALITION

MEDICARE REIMBURSEMENT TO DOD

Subject

Health Care Financing Administration (HCFA) must reimburse Department of Defense (DOD) for care provided to Medicare-eligible beneficiaries.

Problem

Currently DOD has no financial incentive to increase access to care through the MHSS for Medicare-eligible retirees, and they are frequently the first group of beneficiaries to be denied care when budget cuts force cutbacks in care.

Background

There are 1.2 million military beneficiaries age 65 and older. Ninety seven (97) percent are eligible for Medicare. This number will increase over the next few years to 1.4 million.

An estimated 230,000 of Medicare-eligible military beneficiaries use military treatment facilities (MTF's) on a regular basis.

Without Medicare reimbursement, under health care reform, DOD will no longer be able to afford to treat these beneficiaries.

—These beneficiaries will be forced into total dependence on the Medicare program;

—Beneficiaries will be denied their full choice of health care providers;

—Cost to taxpayers will rise since care in DOD facilities and in DOD managed care networks is less expensive than comparable care in civilian facilities.

Medicare reimbursement will allow DOD to treat more Medicare-eligible beneficiaries on a "fee-for-service" basis or in DOD's "managed care" plan

—Medicare will reimburse DOD at lower rate than comparable civilian sources.

—These savings will accrue to the taxpayer.

The Military Coalition position

Medicare reimbursement to DOD for care provided to Medicare-eligible beneficiaries must be incorporated into any health care reform legislation that is adopted. Reimbursement must include payment for care provided on a "fee-for-service" or capitated basis.

ATTACHMENT 5

June 25, 1973.

Memorandum From Vernon McKensic, Deputy Assistant Secretary of Defense (Health Resources and Programs)

Subject: Medicare-CHAMPUS eligibility.

Reference is made to the Memorandum from this office dated 4 June 1973, same subject.

We have not been able to complete the coordination with the Social Security Administration which we feel is necessary to establish a final CHAMPUS implementation of the three new Medicare eligibility provisions of the Social Security Act of 1972 which provide Medicare eligibility for some CHAMPUS beneficiaries.

Pending the completion of the necessary coordination of the CHAMPUS and Medicare claim procedures, the following procedures shall be placed in effect in the adjudication of CHAMPUS claims:

a. Claims from dependents of active duty members will be processed without regard to any possible Medicare eligibility.

b. Claims from retired members and dependents and survivors of deceased active duty and deceased retired members, will continue to be processed in accordance with procedures now in effect with respect to persons aged 65 and over who have Part A coverage under Medicare or Part B only. With respect to the Medicare 1972 Amendment coverage, the CHAMPUS cost-sharing shall be determined without regard to any new Medicare coverage unless the claim itself states the amount of the Medicare payment. In this case, the amount paid by Medicare shall be deducted in determining CHAMPUS cost-sharing under the procedure now in effect with respect to other health plans under 10 United States Code 1086d.

In view of the widespread interest in this matter among service families, your dissemination of this information is requested.

Senator STEVENS. Thank you. I am sure you know that that FEHBP coverage for retired civilians is under attack. I am not sure that you want to join a system that the battle may be harder, but I understand what you are saying.

Ms. SMITH. Well, whatever, it would be an improvement for those that have nothing in the military.

Senator STEVENS. Well, they still have Medicare. That is what they are going to do for the retired civilian employees, too, if I read it right, but we are going to face that in my other committee. I will deal with that there.

Ms. SMITH. Well, we will all go down together.

Senator STEVENS. Thank you very much.

ADDITIONAL SUBMITTED STATEMENTS

For the record, we have accepted testimony from the California Industry and Government Coalition, the American Red Cross, University of Puerto Rico, American Association of Nurse Anesthetists, the Naval Enlisted Reserve Association, the American Psychiatric Association, the American Society of Tropical Medicine and Hygiene, the Fleet Reserve Association, and the Reserve Officers Association.

[The statements follow:]

PREPARED STATEMENT OF THE AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

The American Association of Nurse Anesthetists (AANA) is the professional association that represents over 26,000 certified registered nurse anesthetists (CRNA's), which is 96 percent of the nurse anesthetists in the United States. The AANA appreciates the opportunity to provide testimony regarding CRNA's in the military. We would also like to thank this committee for the help it has given us in trying to assist the Department of Defense (DOD) and each of the Services to recruit and retain CRNA's.

CURRENT STATUS OF CRNA FORCE IN THE DOD

Nurse anesthetists have been the principal anesthesia provider in combat areas in every war the U.S. has been engaged since World War I. Military nurse anesthetists have been honored and decorated by the U.S. and foreign governments for outstanding achievements, resulting from their dedication and commitment to duty, and competence in managing seriously wounded casualties. In World War II, there were 17 nurse anesthetists to every one anesthesiologist. In Vietnam, the ratio of CRNA's to physician anesthetists was approximately 3:1. Two nurse anesthetists were killed in Vietnam and their names have been engraved on the Vietnam Memorial Wall. During the Panama strike, only CRNA's were sent with the fighting forces.

In all of the Services, maintaining adequate numbers of active duty CRNA's is of utmost concern. Current statistics on the active component compiled by the military for both fiscal year 1995 and projected fiscal year 1996 are detailed below:

NURSE CORPS (CRNA'S)—FISCAL YEAR 1995 END STRENGTH

	Authorization	Inventory	Delta
Army	304	226	−78
Navy	174	179	+5
Air Force	233	221	−11
DOD total	711	626	85

FISCAL YEAR 1996 PROJECTED END STRENGTH

	Authorization	Inventory	Delta
Army	304	225	−79
Navy	173	162	−11
Air Force	233	244	+11
DOD total	710	631	−79

As you can see, the Air Force is seeing a positive number for the first time in many years which is attributable to several factors. It is likely that the recent increase in the Incentive Special Pay (ISP) for nurse anesthetists has played a role in keeping retention levels high. Also, the Air Force made the decision in 1994 to address the ongoing nurse anesthetist shortage by training 40 percent more CRNA's. In 1996, these students will graduate and be added to the inventory of practicing Air Force CRNA's. On the other hand, the Army has experienced a negligible impact on recruitment and retention since the implementation of the increased Incentive Special Pay (ISP) for nurse anesthetists. The Navy is currently enjoying a slight surplus in the number of nurse anesthetists, but that number is projected to drop again in fiscal year 1996. Since the Incentive Special Pay was just implemented 15 months ago, it is difficult to assess the true impact since other factors also affect the supply of nurse anesthetists in the military.

CRNA PRACTICE ENVIRONMENT IN THE MILITARY

The ability to function autonomously in remote locations is required of all military CRNA's. It is the promise of this independence which draws many to military anesthesia service. Therefore, any attempt to change the anesthesia practice standard to require that an anesthesia care team consisting of a CRNA and a supervising anesthesiologist to deliver all anesthesia would not only prove detrimental to the morale of military CRNA's, but would also undermine any attempts by the Services to recruit highly motivated individuals. Even more importantly, the Services would lose mobilization effectiveness by requiring two anesthesia providers where autonomous CRNA's have previously provided anesthesia safely and effectively for over 100 years. This military standard is based on the need of the Services to provide a wide range of health care with as few providers as necessary during mobilization to remote or isolated locations. Historically, CRNA's have always worked independently at such locations; therefore, there is no basis for requiring supervision of CRNA's when they then return to more urban facilities.

The U.S. military services do not require anesthesiologist supervision of CRNA's. There are many military medical treatment facilities throughout the world which have military CRNA's as their sole anesthesia providers, and this practice arrangement has not had a negative impact on the quality of anesthesia care. In 1995, the American Society of Anesthesiologists attempted to look at the issue of utilization of anesthesiologists and their relationship with nurse anesthetists in the military. The outcome of the meeting, which was agreed on by all Services, was that there was no apparent problem in this area. Yet there continues to be proposals in all Services for increased supervision of CRNA's, with attempts by physician anesthesiologists to place unnecessary supervision language into local military treatment facility policies.

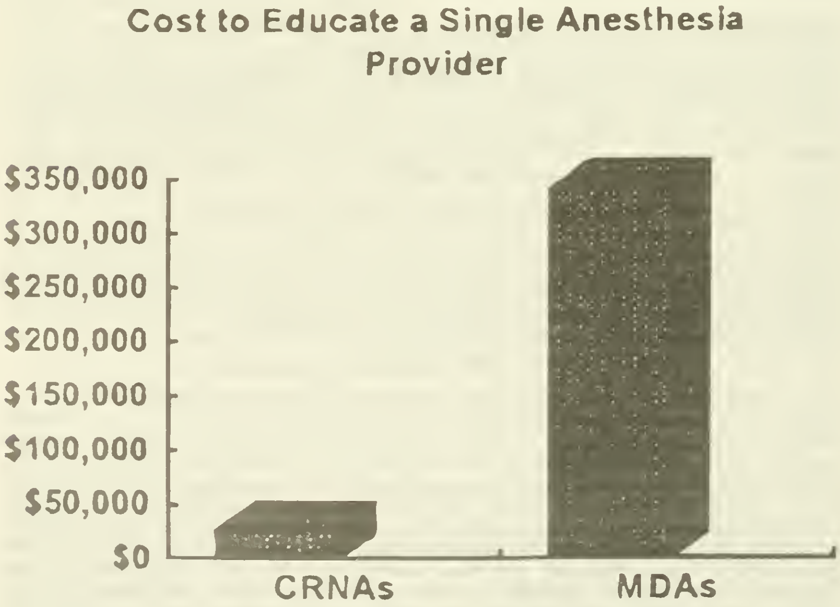
In addition, in light of their largely autonomous role in provision of anesthesia and their experience as military officers, nurse anesthetists could provide valuable insights in the development of military anesthesia practice standards. CRNA's have consistently been involved in policy development. Contributions to the development of standards is a professional responsibility that nurse anesthetists respect. Since both physician anesthesiologists and CRNA's are commissioned officers with the same duties, rights and responsibilities toward the development of their profession, formal recognition and inclusion of CRNA's in the process is only logical.

AANA recommends that DOD maintain the mobilization effectiveness of CRNA's by supporting the enforcement of the current practice standard of autonomous anesthesia care by CRNA's in all locations. In addition, DOD should encourage participation and recognition of CRNA's in the development of anesthesia practice standards, to utilize and benefit from their expertise and experience as military officers and anesthesia providers.

HOW CRNA'S CAN SAVE DOD MONEY

AANA believes that increased utilization of nurse anesthetists could save the DOD significant resources. In the first place, it costs the military much less to educate a CRNA as an anesthesia provider compared to the cost of educating an anesthesiologist. Second, a physician draws thousands of dollars in additional bonuses that illustrate they are significantly more expensive to retain.

Training costs are less



The cost to educate nurse anesthetists is significantly lower than the educational costs for physician anesthesiologists. Becoming a CRNA takes an average of 27 months additional education beyond the nurse's baccalaureate education (four years); while becoming an anesthesiologist takes a minimum of 12 years, which includes a four-year residency. 1992 data from the AANA Council on Accreditation survey of nurse anesthesia programs indicates that the average annual program cost per student nurse anesthetists is $11,741. The total cost for 27 months of CRNA education would therefore be approximately $26,417 ($11,741 per year × 2.25 years). According to 1990 HCFA data, the average annual residency program cost per medical resident was $84,837. The total cost for a four-year anesthesiologist residency would therefore be approximately $339,400 ($84,837 per year × 4 years). AANA estimates that at least 10 CRNA's can be educated for the cost of educating one anesthesiologist. With the shorter training period, the 10 CRNA's will each be in practice for several years before the one anesthesiologist completes his/her residency. A federal study comparing the costs of education for CRNA's versus anesthesiologists would provide valuable data for decision-making on the allocation of scarce federal resources to support health professions education.

Comparison of non-MD bonuses to physician bonuses

In addition to the decreased cost of training a nurse anesthetist, the bonuses received by CRNA's are significantly lower than those received by physicians.

The incentive special pay for nurses.—In the early 1980's, once military CRNA's reached the grade of major (0–4 grade) with 12–14 years service, they could expect their salary and fringe benefits to match that of the average employed CRNA in the civilian workforce. Due to significant increases in civilian CRNA income in the past several years, military pay and fringe benefits were no longer comparable to the average employed civilian CRNA. According to a March, 1994 study requested by the Health Policy Directorate of Health Affairs and conducted by DOD, a large pay gap existed between annual civilian and military pay in 1992. This study concluded that "this earnings gap is a major reason why the military has difficulty retaining CRNA's." In order to address this pay gap, in the fiscal year 1995 Defense Authorization bill Congress authorized the implementation of an increase in the annual Incentive Special Pay for nurse anesthetists from $6,000 to $15,000 for those CRNA's who are no longer under service obligation to pay back their anesthesia education. Those CRNA's who remain obligated will receive the $6,000 ISP. In addition, DOD has standardized the payback obligation across all the Services, which allowed for fair implementation of this increase.

AANA thanks this Committee for its assistance in securing this increase in the annual ISP. AANA strongly recommends the continuation of the annual ISP for CRNA's, which recognizes the special skills and advanced education that CRNA's bring to the DOD health care system.

Board certification pay for nurses.—AANA would also be highly supportive of the implementation of Board Certification Pay for all advanced practice nurses, including CRNA's, nurse midwives, nurse practitioners, and clinical nurse specialists. It is our understanding that language was included in fiscal year 1996 Defense Authorization bill which would extend authority to the Department of Defense to offer a board certification pay to certain health professionals, including nurses. It is also clear that DOD Health Affairs has developed a definition of "health professional" which includes the four advance practice nursing groups (nurse anesthetists, nurse midwives, nurse practitioners, and clinical nurse specialists).

While we understand that an implementation policy for the board certification pay has not yet been finalized, AANA is somewhat concerned that military nurse anesthetists may be precluded from receiving board certification pay since CRNA's are required to be certified in order to enter practice and have no higher level of certification available to them. AANA believes, however, that board certification pay should be applicable to nurse anesthetists for a number of reasons.

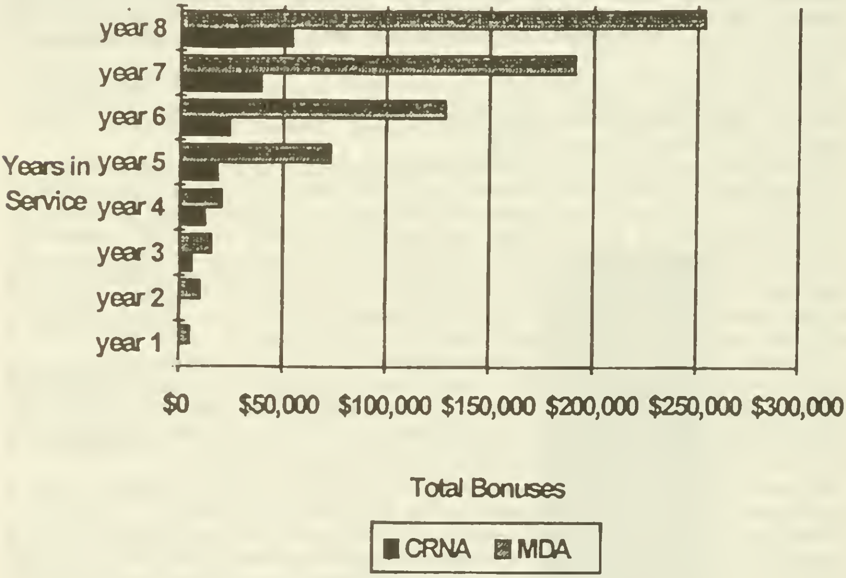
We understand that the concept of board certification pay comes from the physician model, which was implemented as an incentive for physicians to attain the highest level of competency and certification. This same rationale could be applied to a registered nurse, who may be inspired to obtain advanced education and reach a higher level of certification as a nurse anesthetist, nurse midwife, or other advanced nursing specialty. In this scenario, the "board certification" equivalent for a nurse would be certification as an advanced practice nurse. Therefore, those nurses that strive to attain the highest certification available to nurses (such as certification as a nurse anesthetist) should be eligible for board certification pay.

In addition, nurse anesthetists are required to maintain their certification with continuing education. This is unlike physicians, who remain board certified once they pass their board certification exam and are never required to be "recertified" as are nurse anesthetists. Therefore, the board certification pay would reflect the ongoing effort by nurse anesthetists to maintain their certification.

Finally, other nursing professionals (such as nurse practitioners) are not required to be certified to enter practice since there is no national system mandating nurse practitioner certification. Nurse practitioners have the option of certification or not, and can practice either way. Should the profession decide to establish a national standard requiring certification as entry to practice, nurse practitioners would no longer be eligible for board certification pay. While it seems unlikely that all physicians will ever be required to be board certified in order to practice, it may be very likely that eventually all advanced nursing professions will require national certifications for entry to practice, such as in the profession of nurse anesthesia. It seems unfair that nurse anesthetists, as a profession with long-established national standards and requirements for certification, should now be ineligible for board certification pay simply because they have already organized as a national group with a national certification.

Comparison to physician bonuses.—Even with the implementation of an increased ISP and the possible addition of a Board Certification Pay, CRNA's remain cost effective anesthesia providers for DOD. Nurse anesthesia students receive no bonus money at all while attending anesthesia school. Then, CRNA's receive only $6,000 per year in bonus money while under payback service obligation for four years. After their payback is completed, nurse anesthetists are eligible for a $15,000 annual ISP bonus. The alternative to CRNA's, physician anesthesiologists, are eligible for four different bonuses. Physicians are eligible for a $5,000 annual variable special pay upon entering residency. After their four years of residency, they immediately are eligible for an additional $15,000 special pay, and a $33,000 physician ISP annually. Upon passing board certification (usually about 18 months after residency is completed), an additional $2,500 in board certification pay is added to the bonus total (See Appendix I for breakdown of total). All of this bonus money is paid to physicians annually while they are still under a payback service obligation.

In the first eight years of service alone, the result is a wide disparity in the amount paid to physician anesthesiologists ($253,500) compared to the amount paid to CRNA's ($54,000).



MILITARY EDUCATION OF NURSE ANESTHETISTS

DOD statistics show that CRNA recruitment occurs primarily through Nurse Corps officers who choose to continue their education and specialize in nurse anesthesia. Recent statistics from all Services indicate that the majority of CRNA's (79 percent) are produced from within the Services.

The U.S. Army Graduate Program in Anesthesia Nursing, Army Medical Department Center and School is the primary source for Army nurse anesthetists. This nationally recognized program in anesthesia nursing has the capability of educating

44 Army nurse corps officers per year. Upon graduation and successful completion of the national certification exam, graduates are assigned to U.S. Army medical treatment facilities worldwide. They have the ability to work independently or as members of the anesthesia care team, in conventional fixed hospital facilities or in a field environment.

The U.S. Air Force has had a school of nurse anesthesia for 45 years. This program has been at the masters-prepared level for five years. Over 650 nurse anesthetists have been educated by the Air Force with tremendous success, with students regularly accomplishing a 100 percent success rate on the national certification exam. Since these nurse anesthetists are trained by the Air Force, the Service benefits by the anesthesia services these students provide while they are residents. Proven to be some of the best nurse anesthetists in the country, these students are often better prepared for the military environment than those brought in from civilian schools.

The U.S. Navy Nurse Corps Anesthesia Program is the primary source for Navy nurse anesthetists. Graduates of this 30 month program receive a Master of Science degree from Georgetown University. Navy graduates are prepared for independent nurse anesthesia practice ashore or afloat. All of its graduates pass the national certification exam, and are generally more prepared to meet the Navy mission than those trained in civilian schools.

Besides the individual Service programs for nurse anesthesia, the Health Professions Scholarship Program for Anesthesia Nursing also provides financial assistance to professional nurses who are pursuing a master's degree in anesthesia nursing. This program fully funds, or provide financial assistance to, participants in nurse anesthesia programs conducted by civilian educational institutions. Student access to the Health Professions Scholarship Program has been a critical component to the recruitment efforts by the Services.

The AANA is also concerned about continuing support for the Uniformed Services University of the Health Sciences (USUHS). A new nurse anesthesia education program opened in June, 1994 at USUHS with an initial class of seven students which will be graduating this year. The class of 1995 had 11 students, and 13 students will be admitted in 1996. Applicants come from the Army, Navy, Air Force, and the Public Health Service. The USUHS nurse anesthesia program has received support from all the Services, and has demonstrated the efficiency and effectiveness necessary to prepare health professionals for the military. To shut its doors now would prove shortsighted.

Therefore, AANA recommends that this Committee encourage the Services to provide enhanced funding to their own respective nurse anesthesia programs, as the primary source of a stable supply of military nurse anesthetists, and to provide continued funding for the Health Professions Scholarship Program and for the Uniformed Services University of the Health Sciences.

CONCLUSION

In conclusion, the AANA believes that the recruitment, retention and appropriate utilization of CRNA's in the Services is of critical concern. We sincerely appreciate the dedication and support of the Committee in this regard. The efforts detailed above will assist the Services in maintaining the military's ability to meet its peacetime and mobilization medical mission. For further information, please contact Greta Todd, AANA Associate Director of Federal Government Affairs, at 202/484–8400.

APPENDIX I

Timeline	CRNA	Anesthesiologists
End 1st year	....	[1] $5,000
End 2nd year	....	5,000
Mid-year: End nurse anesthesia program. Begin CRNA payback	....	....
End 3rd year	[2] $6,000	5,000
End 4th year: End residency. Begin anesthesiologist payback	6,000	5,000
End 5th year	6,000	5,000
		[3] 15,000
		[4] 33,000

APPENDIX I—Continued

Timeline	CRNA	Anesthesiologists
End 6th year	6,000	5,000
		15,000
		33,000
Mid-year: Physician passes board		[5] 2,500
End 7th year: End CRNA payback	15,000	[6] 12,000
		15,000
		33,000
		2,500
End 8th year	15,000	
End physician payback		12,000
		15,000
		33,000
		2,500
Total bonuses cost to DOD	54,000	253,500

[1] Variable special pay.
[2] ISP.
[3] Additional spec. pay.
[4] Physician ISP.
[5] Board certified pay.
[6] Increased VSP.

Prepared Statement of Donna Mollis, Department of Legislation, American Federation of Teachers Representing the Overseas Federation of Teachers

Mr. Chairman, and members of the Committee, I am here representing the American Federation of Teachers, AFL–CIO and its overseas affiliates, the Overseas Federation of Teachers and the Panama Canal Federation of Teachers. We represent approximately 1,000 American educators located around the world who are teaching in Department of Defense Dependents Schools otherwise known as DODDS. The Department of Defense maintains approximately 172 schools overseas, in which over 80,000 dependents of the United States military personnel serving abroad are enrolled. The Overseas Federation of Teachers represents teachers in Turkey, Bahrain, Spain, Portugal and Italy. The Panama Canal Federation of Teachers represents teachers in the Panama Canal Zone.

We plan to discuss the staffing of the Department of Defense Dependents Schools, but before we do we wish to elaborate on the important role that these schools play in the overseas environment. The commanders of the major military commands have unanimously endorsed the concept that the DODDS schools are an integral part of the Quality of Life program. According to the four star generals who are stationed overseas these schools are a key element in the Quality of Life program and as such contribute directly to the retention of experienced personnel and to the recruitment of the new and needed personnel. A high quality educational program is essential to maintaining high troop morale and efficiency.

We are here today to request that you provide the Department of Defense with the needed resources to provide the high quality education that the children of our service members deserve. Dr. Lillian Gonzalez, Director of the Department of Defense Education Activity (DODEA), has made a commitment to provide the best possible education to the children in our school system, yours and mine, the Department of Defense Dependents Schools. Dr. Gonzalez convened two important groups. First, she created a leadership team whose members represented all stakeholders. Its task was to create a strategic plan that would provide a world-class education for our students as we approach the new millennium, an education that prepares our students to be productive citizens of the United States and members of a dynamic world-wide community. The Strategic Plan that was developed targets very specific areas where new skills and resources are needed to meet that mission. Achieving that mission can only be done if we have the resources needed for our programs and services. Both OFT and DODDS are committed to insuring that our students will be Number One in the world in the knowledge, skills and civic responsibility necessary to insure that democracy will be protected and that we will be secure economically in a fast changing world.

One important area targeted by the DODEA in its quest to move forward is technology. Technology is the key to helping our teachers help our students. Technology is the key in moving our students to the front of the worldwide classroom. Young people, our students, who are prepared to use knowledge creatively in a global setting will be America's leaders of tomorrow. The AFT and OFT join DODEA in taking on this challenge. We welcome the challenge, but your help is needed. We need the resources to meet the challenge. You are our leaders today and you can assist us with preparing the leaders of America for tomorrow.

Dr. Gonzalez recognized the need to review how staffing was done in DODEA schools and to find ways to achieve its mission, that is, providing an even better, more dynamic, world-class educational program for our students. She convened the second important committee, the Staffing Task Force, that met throughout the 1995–96 school year. Its task was to assist her in finding ways to staff schools today to meet the needs of our students for tomorrow. Once again, all stakeholders including parents, teachers and the military commands were selected to be members of the Task Force. The Task Force also responded to a request from the Advisory Council for Dependents Education (ACDE) a Council that reviews the educational program presented by DODDS and makes needed recommendations. We will discuss a couple of the major recommendations made by the Task Force.

Highest on its lists of priorities is a recommendation that an additional 185 work years be established to improve the delivery of technology instruction and improve the staffing of the DODDS media centers (libraries). These media centers have been designated the technological "hub" of the schools. While libraries, computer laboratories, other hardware and software are available, they are not available to the extent needed to meet the needs described above. Also needed are trained educators to guide instruction and trained professionals to ensure the maintenance and upgrading of equipment. It is important to recognize that since our schools are located overseas we must depend on the infrastructure of foreign countries, in some case third world countries. As such, more often than not, there is a greater need overseas than in the U.S. for personnel simply to maintain the equipment so that the educational program may move forward.

We wish to discuss a second recommendation made by the Staffing Task Force and that is privatization. The OFT could easily endorse all of the Task Force's recommendations, except this one. The Task Force called for the contracting out or the privatizing of certain educational positions or functions of the DODDS school system. The OFT is totally opposed to this idea and practice. The OFT is so opposed to the privatization of educational services in DODEA that at its recent convention held on May 26, 1996, in Naples, Italy, the delegates voted to reject all of the Staffing Task Force's recommendations if the section on privatization is not deleted. Privatization has not worked where it has been tried. There is abundant evidence to show that where privatization has been tried, the educational program suffered drastically. In fact, school systems in which it has been tried have seen test scores drop. Those same school systems have now rejected privatization. It would be irresponsible to risk hurting the education of our students in DODDS' schools by privatizing education services when it is known that it will fail. AFT/OFT cannot and will not support it.

While recognizing and strongly supporting the need for technology to move our students into the new millennium, OFT also recognizes and strongly supports the need for a citizenry full of compassion, rich in the humanities with a commitment to our beliefs and values such as justice, honesty, fairness and respect for individual and cultural differences.

Technology is a means to that end, but we must not lose sight of the need for educators to be well-prepared in all areas such as the arts, the humanities, history, science, and the three "R's". Technology will help get us there, but we need to ensure that resources are available to prepare our teachers and provide our schools with the resources needed to achieve high academic and conduct standards. Once again, your assistance is needed to meet this challenge.

We have a duty to maintain the standards that the children of United States military members have had and a duty to move to even greater heights for the benefit of those students whom we have the privilege to educate. We appreciate this opportunity to present our views to you. We hope you will assist us in making the Department of Defense schools number one in the world. Thank you very much.

PREPARED STATEMENT OF THE AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM

INTRODUCTION

On behalf of the 29 Tribal Colleges which comprise the American Indian Higher Education Consortium (AIHEC), I thank the Subcommittee for allowing us this opportunity to express our appropriations request for fiscal year 1997.

The American Indian Higher Education Consortium (AIHEC) was founded in 1972 by six of the first Tribal Colleges. Today, AIHEC is a cooperatively sponsored effort on the part of 29 member institutions across the nation. The Tribal Colleges were chartered by their constituent tribes over the last 25 years in response to the unique higher education needs of American Indian peoples, and in recognition of the paramount importance of postsecondary education to tribal economic development, cultural preservation, and sovereignty. Tribal Colleges serve over 25,000 students each year, offering primarily two-year degrees, with a few colleges now offering four-year and graduate degrees. Together, they represent the most significant and successful development in American Indian educational history, promoting achievement among students who may otherwise never know educational success.

This statement will first provide background information regarding the success of Tribal Colleges, followed by information regarding the funding inadequacies with which Tribal Colleges have coped throughout their history. This will be followed by the Tribal Colleges' specific fiscal year 1997 National Security funding requests.

JUSTIFICATIONS: TRIBAL COLLEGE SUCCESS

AIHEC recognizes the Congress' goal of achieving a balanced budget, and we applaud this effort. We also realize that the Congress is scrutinizing all federal programs, and scaling back on ineffective or duplicative programs and services. Within that framework, AIHEC would like to highlight the following justifications for increased funding for Tribal Colleges.

A. Tribal Colleges provide access to critical postsecondary education opportunities that would otherwise be out of reach. Most American Indian reservations are located in extremely remote areas, and their populations are among the poorest in our nation. For many American Indian communities, the nearest mainstream institution is several hours away, making attendance virtually impossible. The cost of attending a mainstream institution is usually prohibitively high, especially when tuition, travel, housing, textbooks, and all other expenses are considered. Unemployment on the reservations served by Tribal Colleges can be as high as 86 percent. Fully 98 percent of Tribal College students qualify for need-based federal financial aid.

Indian students who attend mainstream institutions have the worst college completion rates in the country (Thirteenth Annual Status Report on Minorities in Higher Education, American Council on Education). According to a recent Bureau of Indian Affairs report, only 4 percent of American Indians and Alaska Natives who attend college complete their degrees, while the American Council on Education (ACE) reports that as many as 53 percent of non-Indian students complete their degrees. ACE also reports that American Indians are less than half as likely as the general population to attain four-year degrees. This lack of educational attainment indicates serious gaps in the infrastructure and expertise necessary to effectively support and develop tribal communities. In contrast, Tribal Colleges are located in the hearts of their communities, with Indian instructors and administrators who serve as both mentors and role models. Tribal Colleges understand the unique needs of Indian students, and respond with tribally-specific support services.

B. Tribal Colleges are producing a new generation of highly trained American Indian contributors: teachers, tribal government leaders, engineers, nurses, computer programmers, and other much-needed professionals. Most of these new professionals are the first in their families to attend college. By teaching the job skills most in demand on their reservations, Tribal Colleges are laying a solid foundation for tribal economic growth, with benefits for nearby off-reservation communities. Most Tribal College graduates remain in their tribal communities, contributing their newly-acquired skills and knowledge where they are most needed. For example, 87 percent of Little Big Horn College (Crow Agency, Montana) graduates have found employment within the Crow Indian Reservation community.

C. Tribal College students and faculty also contribute to our nation as a whole, by participating in our national community of researchers, scientists, authors, artists, innovators, and teachers. Despite their lack of adequate funding, Tribal Colleges have established centers for research and education that are contributing in revolutionary ways. Many Tribal Colleges are conducting economic development research, investigating new land uses and encouraging tribal entrepreneurship.

D. Tribal Colleges comply with the strict standards of mainstream accreditation boards, and offer top-quality academic programs. It is not uncommon for accrediting agencies to refer mainstream institutions to Tribal Colleges for assistance with the accreditation process; Tribal College self-studies have been used as models of excellence for non-Indian institutions.

E. Tribal Colleges serve as highly effective bridges to mainstream four-year postsecondary institutions: fully 42 percent of Tribal College students transfer to four-year institutions. Students who transfer from Tribal Colleges are much better prepared for the challenges of mainstream four-year institutions; they are far more likely to complete Bachelor's degree programs than American Indian students who enter as freshmen.

F. Tribal Colleges serve as community centers, providing libraries, tribal archives, career centers, economic development centers, public meeting places, child care centers, and a broad range of other urgently-needed facilities.

G. Tribal Colleges have become centers for American Indian language and cultural research, preservation, and revitalization. Many Tribal Colleges now serve as tribal archives, and offer courses in tribal history, literature, government, language, kinship, and other aspects of American Indian cultures.

A HISTORY OF INSUFFICIENT FUNDING

The Tribal College Act provides funding for the operational budgets of most Tribal Colleges, based on an American Indian enrollment formula. The Act does not provide any funding for non-Indian students, although Tribal Colleges serve an increasing number of non-Indian students. Nearly fifteen years ago, the Act was reauthorized at $5,820 per Full-Time Equivalent Indian Student Count (ISC), an amount determined to be necessary to operate Tribal Colleges in that year.

However, the first Tribal College Act appropriation, in 1981, provided only $2,831 per ISC, less than half of the necessary amount of support. In the last decade and a half, appropriations per Indian Student Count have not increased and have never met the Tribal Colleges' basic operational costs. It is important to note that Tribal College enrollments have increased dramatically: The Tribal Colleges funded under this Act now serve nearly 20,000 students every year. However, Tribal College Act appropriations have remained at an inadequate level. In the past two years, per ISC funding has actually dropped. In fiscal year 1996, 15 years after the first appropriation, Tribal Colleges received only an estimated $2,900 per ISC—a gain of only $69 since 1981. Funding for Tribal Colleges, insufficient from the outset, has not even kept pace with inflation, much less the rising cost of higher education. In the last 15 years, even the minimum wage has increased in recognition of increased costs of living. The Tribal Colleges' appropriation of $2,900 per student is dramatically less than the average per student revenue of mainstream two-year colleges.

Tribal Colleges have survived on a patchwork of smaller, competitive, temporary grants which supplement the insufficient Title I funds. This has never been a stable way of funding Tribal Colleges. Additionally, due to this inadequate funding, Tribal Colleges are now in urgent need of facilities repair and renovation.

While mainstream institutions are able to fall back on a foundation of stable state support, Tribal Colleges are located on federal trust territory, and states therefore have no obligation to fund them. They receive little or no funding from the states in which they are located. Tribal Colleges are reliant on the federal government for their operational funding. Tribal Colleges are also inequitably served by state block grants, and are frequently neglected in block grant distribution.

Tribal Colleges cannot rely on local tax base revenue. Although Tribes possess the sovereign authority to tax, high reservation poverty rates, the trust status of reservation lands and the lack of a strong reservation economy diminish the creation of a reservation tax base. The Carnegie Foundation's 1989 report, Tribal Colleges: Shaping the Future of Native America found that: "* * * the challenges these institutions confront cannot be overstated * * * the limited federal support these colleges receive—the backbone of their funding—fails to keep pace with their enrollment growth" (page 3).

Indian gaming is not a viable funding source for Tribal Colleges. The vast majority of the reservations which Tribal Colleges serve are located in remote and economically disadvantaged areas. Therefore, gaming has not been a sound source of income for the colleges. In addition, gaming tribes should be held to the same standard as states which are not required to share their gaming revenue with other states nor are they penalized for the success of their lotteries or gambling.

Tribal Colleges are a direct result of the special relationship between American Indian tribes and the federal government, and they cannot be equated with affirmative action programs. Tribal Colleges are founded and controlled by their respective

American Indian nations, which hold a special legal relationship with the federal government confirmed by numerous treaties, Supreme Court decisions, and prior Congressional action. Tribal Colleges serve communities in the most remote areas of our nation. For Tribal College students, both Indian and non-Indian, higher education would otherwise be inaccessible. Tribal Colleges do not discriminate based on race or ethnicity. They are simply, and effectively, removing barriers that have long prevented equal access to higher education for reservation communities. Tribal Colleges need increased funding in order to provide their American Indian students with the equal educational opportunity they deserve.

TRIBAL COLLEGE REQUEST FOR NATIONAL SECURITY PROGRAMS

Tribal Colleges are dramatically underserved by the Department of Defense (DOD). Tribal Colleges are therefore respectfully requesting that the Subcommittee review DOD programs, adjust language to allow for increased Tribal College participation, and work with AIHEC to build new partnerships. There are many existing DOD programs from which Tribal Colleges could greatly benefit. However, Tribal Colleges are currently excluded from these programs, usually because of regulation language that excludes two-year institutions from eligibility. In the fiscal year 1995 DOD Appropriations Bill the Tribal Colleges are even mentioned by name (in the Historically Black Colleges and Universities and Minority Institutions program), but are still excluded by regulations restricting eligibility to four-year institutions. As stated in the introduction, Tribal Colleges are almost entirely two-year institutions. In order to rectify this problem, and improve Tribal College participation in DOD programs in general, Tribal Colleges are requesting that:

1. The Congress end the two-year Tribal Colleges' exclusion from DOD programs, particularly the University Research Initiative (which aims in part to serve Minority Institutions, including Tribal Colleges as named in the fiscal year 1995 DOD Appropriations Bill).
2. The Subcommittee's report include language calling for new DOD regulations enabling greater two-year Tribal College participation.
3. As charged by the President's Executive Order #12928 ("Promoting Procurement with Small Businesses Owned and Controlled by Socially and Economically Disadvantaged Individuals, Historically Black Colleges and Universities, and Minority Institutions"), the Department of Defense examine ways to include Tribal Colleges in implementing the Order.
4. The Department of Defense investigate potential new partnerships with AIHEC. Tribal Colleges have long emphasized the math, science, and engineering coursework and research that correspond with our nation's security needs. Several Tribal Colleges have already established collaborative relationships with Department of Defense laboratories. Tribal Colleges are an untapped resource with much to offer the Department of Defense.

THE NEED FOR A TRIBAL COLLEGE EXECUTIVE ORDER

The exclusion of Tribal Colleges from DOD programs is a perfect example of the Tribal Colleges' need for a Presidential Executive Order office which will ensure that they are not overlooked in the creation and administration of federal programs. One of the greatest challenges confronting Tribal Colleges today is overcoming the fact that most federal departments and agencies are unaware of the Tribal Colleges' existence. The Historically Black Colleges and Universities (HBCU's) and Hispanic-Serving Institutions (HSI's) have long benefited from similar Executive Orders. The federal definitions and criteria for minority postsecondary eligibility may inadvertently restrict Tribal College access, because these programs are typically created to serve the two larger constituencies, the HBCU's and HSI's. Tribal Colleges have always struggled with insufficient funding, and as enrollments increase and federal budgets are cut, it will be more important than ever for Tribal Colleges to have an equal opportunity to compete in federal postsecondary education programs.

The proposed Tribal College Executive Order has received strong bi-partisan and federal agency support. In the current budget climate, the White House office created by the Order may require the contribution of resources from several agencies. These resources may be financial or human. The Tribal Colleges are therefore requesting that the Subcommittee include in its conference report language which would enable and encourage this contribution in the form of funding or personnel detail.

CONCLUSION

In light of the justifications presented in this testimony, we hope that all Members of this Subcommittee will acknowledge the need for increased funding for Tribal Colleges. Fulfillment of AIHEC's fiscal year 1997 request will strengthen the mission of these colleges and the enormously positive impact they have on their respective communities nationwide. As demonstrated in this testimony, Tribal Colleges have been extremely responsible with the federal support they have received in the last 15 years. It is important that the federal government now capitalize on its investment. These institutions have proven themselves as a sound federal investment, maximizing their limited funds to "open doors of opportunity to the coming generations and help Native American communities bring together a cohesive society, one that draws inspiration from the past in order to shape a creative, inspired vision of the future" (Tribal Colleges: Shaping the Future of Native America, Carnegie Foundation).

Thank you again for this opportunity to present our request before this Subcommittee. We respectfully ask the Members of this Subcommittee for their continued support and full consideration of our fiscal year 1997 appropriations request.

PREPARED STATEMENT OF SUE RICHTER, VICE PRESIDENT FOR ARMED FORCES EMERGENCY SERVICES, AMERICAN RED CROSS

INTRODUCTION

Mr. Chairman and members of the subcommittee, on behalf of the American Red Cross I want to express my gratitude for this opportunity to address the situation facing the Armed Forces Emergency Communications program. I am Sue Richter, Vice President for Armed Forces Emergency Services.

Mr. Chairman, every 20 seconds, a message goes through the Red Cross Emergency Communications Center in Falls Church, Virginia, on its way to or from someone in the United States Armed Forces. Four thousand messages are delivered every day to service men and women and their families around the world. Most of them bring news of a family crisis—a death, a serious illness, or a financial emergency. Some announce the birth of a child. Some simply express the concerns of a worried family for a son or daughter who has been out of touch for too long.

Two recent examples illustrate the importance of emergency communications to those who serve in the military. Earlier this year, a serviceman's aunt contacted the Red Cross chapter in Cincinnati, Ohio requesting that her nephew serving in Bosnia be allowed to return home. The soldier's mother had been hospitalized and was diagnosed with lung cancer that was moving into the brain. The serviceman had been unaware of the situation since his mother had not wanted him to know of her illness. The Red Cross verified with medical authorities the condition of the soldier's mother and forwarded this information to its office in Bosnia. The soldier was informed of this grave situation by a Red Cross representative in Bosnia and was granted emergency leave by military authorities.

In a happier situation, a service wife requested her husband be notified of the birth of their son at Madigan Army Medical Center at Ft. Lewis, Washington. The Red Cross confirmed with the doctor that the mother and son were both doing well and forwarded this information from the Red Cross station at Ft. Lewis to Bosnia. The soldier was notified of the good news and was able to telephone his wife.

The Red Cross maintains a global emergency communications center anchored by 220 Red Cross stations, with 42,000 volunteers and 608 paid staff, on military installations around the world. These stations integrate with more than 1,400 Red Cross chapters throughout the United States. This network rapidly exchanges personal emergency information between military family members, no matter how far apart they may be.

No other organization has such expertise or the extensive network of staff and volunteers that reach into virtually every community in America. This network, with the support of the military, enables the Red Cross to send emergency messages quickly, with compassion and confidentiality, 24 hours a day. The Red Cross also assists military authorities with fast and reliable verification of at-home conditions that may justify emergency leave for a soldier whose family is in crisis. When necessary, the Red Cross will provide or aid in finding short-term financial assistance to help with an emergency situation. Because of its round-the-clock, 24-hour service, the American Red Cross frequently serves as the agent for the military aid societies after regular business hours.

Members of the U.S. military value and depend on these services from the Red Cross. In a recent survey of active duty personnel, 92 percent of the direct supervisors and chaplains surveyed said they would send someone to the Red Cross first when they needed to verify a family emergency. 82 percent of the active duty, guard and reserves, as well as 81 percent of the base commanders surveyed, think it is very important for a Red Cross representative to accompany troops on deployment. 95 percent of those surveyed who received Red Cross services indicated they were satisfied or very satisfied with the help they received. Respondents were also asked if the help they received from the Red Cross was worth the time and effort that it took to get it. 94 percent said yes. 42 percent of the military families that utilized Red Cross services said the American Red Cross was the only organization that they knew to contact during time of family emergency.

The Red Cross can help armed services personnel and their families because of its unique partnership with the military and the American people. The Red Cross provides trained volunteer and paid staff on-site in communities and on military installations in the United States and overseas. It also maintains the communications system for transmitting emergency messages. The military gives the Red Cross access to its facilities and its communications system, and provides in-kind support such as office space, telephones, and transportation.

BACKGROUND

The Red Cross began as an effort to alleviate human suffering on the battlefield. In 1861, Clara Barton, a government clerk in Washington, volunteered to provide medical and social services to the Civil War wounded. In 1881, she founded the American Association of the Red Cross. Twelve years later, after organizing nurses and volunteers to serve with the troops in the Spanish American War, she reincorporated the association as the American National Red Cross. In 1905, Congress granted a charter to the American Red Cross requiring, among several things, that the organization act "in accord with the military authorities as a medium of communication between the people of the United States and their armed forces * * *". In 1914, the Red Cross was recognized as the official "voluntary agency charged by Congress to give aid to the Army and Navy."

Since this time, the Red Cross has operated in a quasi-official manner, providing not only communications but a variety of other important services to help members of the U.S. Armed Forces and their families around the world. Red Cross nurses and ambulance drivers served during the Spanish-American War and World War I. Red Cross canteens welcomed American troops during World War II, and American Red Cross recreation clubs were established close to the front lines in the Korean and Vietnam conflicts. The emergency communications system was established in 1946. During the 1990–91 conflict in the Persian Gulf, the Red Cross provided service members and their families with financial assistance, crisis intervention, support groups, and a variety of other services. The Red Cross has been in Somalia, Rwanda, Cuba, Haiti and Bosnia providing support and comfort to American service members. It currently supports a military community of over 4 million active-duty men and women and family members, including 1.4 million children.

In 1995, Red Cross Armed Forces Emergency Services served more than 300,000 military families and provided $10.3 million in loans or grants for emergency needs. It also placed 42,000 Red Cross-trained volunteers in military communities around the world. Their 4 million hours of volunteer service is valued at $53 million.

In today's military, the need for Red Cross services has seldom been greater. Over half of current active-duty service members are under 25 and married, with children. As Senator Inouye has noted, there are now more military family members than active duty members of the military itself. Service members receive relatively low pay and are separated from their families for increasingly longer periods of time. In fact, many military units and ships are deployed for 60 percent of the year. All of these factors, combined with the life-and-death challenges of military service, create a steady demand for Red Cross emergency services. Red Cross services are a crucial part of the quality of life for military families which, in turn, is important in the maintaining of troop morale and retention.

CHANGE IN FINANCIAL ENVIRONMENT

Despite being the original service of the American Red Cross, assistance to armed forces and their families is only one of several services provided. Red Cross chapters must also raise funds for local and national disasters and for a wide variety of special programs to meet the needs of their civilian communities. In the early 1990's, it became more and more difficult for Red Cross chapters to raise all the funds they needed, particularly to support services to the armed forces. Two trends in American philanthropy have contributed to this difficulty. First, the competition for charitable contributions in every community has increased as the number of nonprofit organizations has increased dramatically. Second, donors increasingly prefer to contribute to local organizations to meet local needs. Both of these trends stem from the growing public concern over a wide range of human problems that are experienced most directly at the local level. These include the crime, child abuse, drug abuse and homelessness that are so vividly and dramatically presented in the local and national news media.

These trends are compounded by the fact that allocations from the United Way to a substantial number of Red Cross operating units have fallen dramatically. In some communities, the United Way trend toward donor choice and open competition between agencies for donor designations has put Red Cross Armed Forces Emergency Services at a serious disadvantage. A shift in United Way away from funding agencies toward funding specific programs or problems has also made it more difficult to raise money for a program many prospective donors see as a responsibility of the Federal Government. Red Cross services to the military during peacetime are simply not considered a priority among the United Ways or the contributing public compared to the increasing number of other human service programs competing for designations. Out of the headlines and off the front pages of newspapers, the day-to-day stress on military families seems less pressing.

Those who are directly connected with the armed forces know the importance of morale and family stability to force readiness. They understand the need for Red Cross services to the military. However, since these issues lack the drama and violence that generate media interest, many in the general public do not understand.

There are of course communities with a special understanding of the real problems of military families and the role the Red Cross plays in the quality of their lives. The Red Cross, however, is limited in its ability to tap this potential fund-raising resource. With regard to fund-raising on military bases, the Combined Federal Campaign is the only authorized fund-raiser in the government workplace according to Executive Order. The increasing pool of CFC-eligible organizations has resulted in a shrinking percentage of CFC funds to the Red Cross. Red Cross fund-raising outside the workplace in commissaries and recreational facilities is allowable only under the discretion of military commanders.

The generosity of the American people is great and Red Cross chapters did all they could to raise money locally to support military families in their communities. By the early 1990's, however, chapters reluctantly reported that they could not send as much money to headquarters as in the past to support services outside their community—including services to the military. The unique Red Cross service that was built upon chapters in civilian communities, stations on military installations, and a worldwide communications network, was threatened by financial realities that the Red Cross could not overcome by itself.

BRIDGE FUNDING: DESIGNING, CONSTRUCTING AND COMPLETING THE BRIDGE

Designing the Bridge

Despite the increasing financial problems of Armed Forces Emergency Services, in 1991 Red Cross President Elizabeth Dole and the Board of Governors affirmed the organization's commitment to maintaining the service and continuing the Chartered role. To meet this commitment in the face of increasing financial pressures, the Red Cross embarked on an unprecedented effort to reduce the cost of its services to the military, without reducing quality, and to raise additional funds to support the service. At the same time, the Board recognized the increasing difficulty of funding the services on military bases with money raised by the Red Cross chapters to support services in their local communities.

In early 1994, a Department of Defense process action group composed of representatives from each of its Services, the Joint Staff and the American Red Cross, confirmed that Red Cross Armed Forces Emergency Services are essential to the U.S. Military and that the Defense Department could not accomplish its emergency communication requirements without the Red Cross. Since DOD did not have the authority to provide appropriated funds to the American Red Cross without Congressional action, an agreement was reached between the American Red Cross, the Department of Defense and the bipartisan leadership of the House and Senate Appropriations and Armed Services Committees to provide three years of DOD bridge funding for Armed Forces Emergency Services.

Constructing the Bridge

As a result, Congress passed legislation, Section 383 of the National Defense Authorization Act for Fiscal Year 1995 (Public Law 103–337), which authorized the Department of Defense to transfer $14.5 million per year to the Red Cross for fiscal 1995, 1996, and 1997. Congress agreed in fiscal year 1995 and 1996 to appropriate the funds to begin the financial bridge. The Red Cross is requesting the final $14.5 million appropriation for fiscal year 1997 to complete the bridge and fulfill the 1994 commitment.

At the same time Congress has been supplying these crucial funds, Red Cross Armed Forces Emergency Services has been reducing its operating costs in concert with military downsizing as well as increasing the efficiency of station operations—$10 million over the past four years. In addition, it has aggressively explored new ways of delivering this service, and already has made considerable reductions in cost through efficiencies.

Completing the Bridge

Service redesign.—During the first two years of the authorized 3-year bridge period, the Red Cross has been taking measures to introduce more cost-effective communications technologies, improve the efficiency and effectiveness of its Armed Forces service delivery system, and develop long-term funding sources for it.

The American Red Cross has embarked on a project to assess the feasibility of a redesigned service delivery system for Armed Forces Emergency Services. This redesign blue print should lead to greater cost-effectiveness and efficiency while minimizing the need for further fund-raising. The plan consists of the following components:

—Emergency communications service centers relocated in areas of clustered demand to provide a more centralized communications and casework network.

—A computer-based mail technology supported by telephone, FAX and integration with the DOD's Defense Message System.

—Integration of Red Cross chapter and military station operations where feasible to reduce redundancy in management and enhance efficiency.

—National headquarters management of overseas operations, selected U.S. stations, and military deployments.

—Coordinated statewide planning for service delivery.

—Providing for a reserve cadre of mobile staff to ensure an adequate number of staff are available for all deployments and other military operations.

The redesign blueprint is currently being tested in Texas and Virginia. These states are appropriate microcosms for this test with their large metropolitan chapters, small all-volunteer chapters and large and small military installations. These pilot programs are giving the Red Cross the opportunity to fine-tune this redesigned service so it can be effectively implemented world-wide and allow a more streamlined service delivery system.

Aggressive fund-raising.—Several corporations have made gifts to support Red Cross Armed Forces Emergency Services. Targeted financial development efforts continue to be pursued at the Red Cross chapter and station level. A pilot program is being implemented with the Veterans of Foreign Wars to align VFW posts with Red Cross stations to expand upon an existing cooperative arrangement for disaster relief. We hope this can be a model for similar arrangements with other patriotic/military organizations. Plans are also underway for the establishment of a "rapid response" fund-raising capability for major military deployments, peacekeeping missions and armed conflicts. Continued aggressive efforts in fund-raising, as well as continued improvements in efficiency, will be necessary to achieve full funding for the program in the long term.

CONCLUSION

For over a century, the American Red Cross has served as a link between the people of this country and "their Armed Forces." This has been accomplished only with the cooperation and support of both the civilian and military communities. Not only have both civilian and military personnel donated their time and their money to support these services, but the Department of Defense has provided invaluable assistance with the essential backing of Congress. The Red Cross is pleased that a bipartisan, short-term funding plan, implemented with the assistance of the Department of Defense and Congress, has allowed the continuation of an essential service that has consistently been shown to be important to the quality of life and morale of Armed Forces personnel and their families. Service to the military was the first mission of the American Red Cross. It remains a vital part of the Red Cross mission today. This role has been recognized by Congress and the Department of Defense which have both proven committed to ensuring that the Red Cross meets its Chartered obligations. The Red Cross is grateful that this spirit of partnership has allowed it to navigate a difficult financial period. In providing the final $14.5 million for fiscal year 1997, Congress will be keeping its commitment to the servicemembers and their families who rely on the American Red Cross when Help Can't Wait.

Prepared Statement of the American Society of Tropical Medicine and Hygiene

The American Society of Tropical Medicine and Hygiene (ASTMH) is pleased to submit public witness testimony in support of the Department of Defense (DOD) medical research programs for fiscal year 1997. ASTMH is a professional society of 3,100 researchers and practitioners dedicated to the prevention and treatment of infectious and tropical infectious diseases. The collective expertise of our members is in areas of basic molecular science, medicine, vector control, epidemiology, and public health.

We respectfully request your continued support of the DOD Infectious Disease and HIV research programs of the U.S. Army Research Institute for Infectious Diseases (USAMRIID), the Walter Reed Army Institute of Medical Research (WRAIR), the U.S. Naval Medical Research Institute (USNAMRI), and overseas Army and Navy laboratories in Thailand, Indonesia, Egypt, Brazil, Kenya, and Peru. We realize that Congress has a mandate to reduce the deficit and that funding for defense programs is under the same scrutiny as other programs. However, we would argue that support of these programs is an investment for the United States.

TROPICAL INFECTIOUS DISEASES

Infectious diseases such as malaria, schistosomiasis, leishmaniasis, Chagas disease, and dengue fever are major international health problems. They account for approximately 50 percent of all deaths in tropical areas and 2.5 billion people—half the world's population—are at risk. The human, economic, and societal costs of infectious diseases in the tropics are tremendous.

While the most serious burden of these diseases is on the people of developing countries, their impact is global. Factors such as modern travel, increased international commerce and tourism, population shifts to urban areas, rapid population growth, and environmental and ecological changes have expedited the transmission of vector borne diseases. Infectious microbes are incredibly resilient—many of them have an extraordinary ability to adapt, evolve, and develop drug-resistance. The medical and scientific advances of the last 70 years—many of which are the direct result of research sponsored by the Department of Defense—supported a misconception that the modern, developed world is safe from widespread infectious diseases. In reality, infectious and tropical infectious diseases are appearing or reappearing throughout the world, and in the United States, with increasing incidence.

DEPARTMENT OF DEFENSE PROGRAMS

The DOD Infectious Diseases Program develops information, technology, and capability to prevent endemic and epidemic infectious diseases from having a negative impact on military operations and mobilization. There is extensive documentation of the often decisive role of infectious diseases in military conflicts (70 percent of U.S. military hospitalizations during the Second World War, the Korean War, and the Vietnam Conflict were for non-battle related diseases). More recently, U.S. troops serving in the Persian Gulf War, in Somalia, and in Haiti contracted malaria, leishmaniasis, and dengue fever. U.S. troops presently serving in the Bosnia Peacekeeping Mission are at risk of diarrheal disease, tick-borne encephalitis, Lyme disease, and hantavirus hemorrhagic fever.

However, as a result of broad bipartisan support by Congress for the DOD Infectious Diseases Research Program and related activities, the U.S. military has been prepared for the occurrence of infectious and tropical infectious diseases. These diseases were rapidly identified and brought under control in the Persian Gulf, Somalia, and Haiti campaigns, and the Theater Area Medical Laboratory is in operation in Bosnia.

Malaria

The need for new drugs and vaccines against malaria is emphasized by its increasing world-wide incidence. It infects 300–500 million people annually and kills an estimated 1.5 million of these. As malaria continues to emerge and drug-resistant forms become more frequent, new drug development is critical. The U.S. DOD malaria drug development program is the only one of its kind in the world. A trial is currently underway in Kenya to test the drug azithromycin, a promising new antimalarial treatment. An important activity is the cloning of the malaria genome—which the DOD estimates will require $15 million over three years—and which will be used for both vaccine and drug development.

Overseas Labs

The DOD maintains overseas labs, in which U.S. and host country researchers are well poised to detect emerging diseases through their surveillance operations. These are unique sites in which U.S. military researchers and physicians gain direct knowledge of tropical infectious diseases. Further, the labs provide vital opportunities for drug, vaccine, and diagnostic research. For example, a trial of hepatitis A vaccine in collaboration with the Thai government and a pharmaceutical company led to licensing of this product last year. Examples of current or planned projects include a cholera vaccine trial (in collaboration with Swedish Biologicals) in Peru; ETECH vaccine trials scheduled for Cairo and Peru; a dengue vaccine in Thailand; and new diagnostic tests for malaria and leishmaniasis.

Much of the research supported by these DOD programs is of dual use; it benefits U.S. public health efforts as well as the military personnel. For example, the detection of the hantavirus that caused pulmonary syndrome deaths in several regions of the U.S. in 1993 and 1994 and the rapid containment of Ebola virus in a monkey laboratory in Reston, Virginia in 1989 (which was the basis of the non-fiction best-seller The Hot Zone) relied upon USAMRIID technology. In April 1996 Army scientists at Ft. Detrick, Maryland played a prominent role in detection and control of the Ebola outbreak in research monkeys at the Texas Primate Center.

FUNDING REQUEST

The ASTMH requests your continued support of DOD Infectious Diseases Research programs. Despite the successes and the potential of this program, no new funds have been provided in the Administration's 1997 Budget Request. We are particularly concerned about the status of the non-HIV Advanced Development programs, which support clinical research in vaccine development and therapies. The ASTMH urges Congress to provide at least level funding for the DOD Infectious Diseases Research Program in fiscal year 1997.

For fiscal year 1996, Congress provided $30 million for HIV research at DOD. While this was $10 million below the fiscal year 1995 appropriation, it was $20 million above the Administration's request, and the ASTMH is very appreciative that you were able to restore much of the proposed cut. At a minimum, we respectfully request that Congress maintain support for the HIV research program at the fiscal year 1996 level.

We ask that you not allow years of vital research to be undermined through budget cuts. By providing consistent, bipartisan support, Congress has recognized the strategic importance of maintaining the U.S. military's infectious diseases research programs. With a shrinking U.S. military, coupled with the need to respond to conflict anywhere in the world, it is more important than ever to preserve combat readiness. Like other military research, medical research cannot easily be re-started whenever the need arises.

Thank you for your consideration of our requests.

PREPARED STATEMENT OF THE CALIFORNIA INDUSTRY AND GOVERNMENT COALITION ON PM–10

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Coalition on PM–10, we are pleased to submit this statement for the record in support of our fiscal year 1997 funding request of $750,000 for the California San Joaquin Valley Region PM–10 Air Quality Study.

The San Joaquin Valley of California and surrounding regions exceed both state and federal clean air standards for small particulate matter, designated PM–10. The 1990 federal Clean Air Act Amendments require these areas to attain federal PM–10 standards by December 31, 2001. Attainment of these standards requires effective and equitable distribution of pollution controls that cannot be determined without a major study of this issue.

According to EPA and the California Air Resources Board, existing research data show that air quality caused by the PM–10 problem has the potential to threaten the health of more than 3 million people living in the region, reduce visibility, and impact negatively on the quality of life. Unless the causes, effects and problems associated with PM–10 are better addressed and understood, many industries will suffer due to production and transportation problems, diminishing natural resources, and increasing costs of fighting a problem that begs for a soundly researched solution.

PM–10 problems stem from a variety of industry and other sources, and they are a significant problem in the areas that are characteristic of much of California. Typical PM–10 sources are dust stirred up by vehicles on unpaved roads, and dirt loosened and carried by wind during cultivation of agricultural land. Soil erosion through wind and other agents also leads to aggravation of PM–10 air pollution problems.

Several aspects of the research are important to the U.S. Department of Defense:

—DOD has a number of facilities within the affected region, such as Edwards Air Force Base and China Lake. Degradation of air quality and visibility could impact their operations.

—Poor air quality also degrades the health and quality of life of personnel stationed at Valley bases.

—Operations at DOD facilities in the Valley produce emissions which contribute to the Valley's air quality problem.

—Transport out of the Valley may impact operations in the R–2508 airspace in the Mojave Desert. Visibility reduction in particular could interfere with the ability to conduct sensitive optical tracking operations at DOD desert test ranges.

In summary, the Department of Defense is a double stakeholder with respect to the PM–10 issue and this important study. DOD activities not only contribute to the problem, they also are negatively affected by it.

The importance of this study on PM–10 is underscored by the need for more information on how the federal Clean Air Act Amendments standards can be met effectively by the business community, as well as by agencies of federal, state and local government whose activities contribute to the problem, and who are subject to the requirements of Title V of the Clean Air Act. There is a void in our current understanding of the amount and impact each source of PM–10 actually contributes to the overall problem. Without a better understanding and more information—which this study would provide—industry and government will be unable to develop an effective attainment plain and control measures.

Numerous industries, in concert with the State of California and local government entities, are attempting to do our part, and we come to the appropriations process to request assistance in obtaining a fair federal share of financial support for this important research effort. In 1990, our Coalition joined forces to undertake a study essential to the development of an effective attainment plan and effective control measures for the San Joaquin Valley of California. This unique cooperative partnership involving federal, state and local government, as well as private industry, has raised more than $12 million to date to fund research and planning for a comprehensive PM–10 air quality study. Our cooperative effort on this issue continues, and it is our hope that private industry, federal, state and local governments will be able to raise an additional $12 million over the next three years to fund this important study.

To date, this study project has benefited from federal funding provided through USDA's DOD's and EPA's budgets. In fiscal year 1993, $330,000 was provided through an EPA grant. In fiscal year 1993, a total of $2.85 million was appropriated for the study. In fiscal year 1995, $1.14 million was appropriated for PM–10. For fiscal year 1996, a total of $1.65 million was appropriated.

The following is a list of PM–10 research projects which are in progress:

—*Planning.*—Development of products for emissions, field monitoring, data analysis and modeling.

—*Technical support studies.*—Suitability of data base; Winter/Autumn intensive study; micrometeorological parameters; fog formation/dissipation; ammonia from soils.

—*Modeling.*—Demonstration of modeling system for application in SIP's.

—*Data analysis.*—Analysis of existing data to aid project planning.

—*Demonstration studies.*—Almond, fig, walnut, cotton, harvesting; unpaved agricultural roads; unpaved public roads; unpaved shoulders of paved roads; dairies, feedlots, poultry, dry cereal grain.

For fiscal year 1997, our Coalition is seeking $750,000 in federal funding through the U.S. Department of Defense to support continuation of this vital study in California. We respectfully request that the Appropriations Subcommittee on Defense provide this additional amount in the DOD appropriation for fiscal year 1997, and that report language be included directing the full amount for California.

The San Joaquin Valley PM–10 study will not only provide this vital information for a region identified as having particularly acute PM–10 problems, it will also serve as a model for other regions of the country that are experiencing similar problems. The results of this study will provide improved methods and tools for air quality monitoring, emission estimations, and effective control strategies nationwide.

The Coalition appreciates the Subcommittee's consideration of this request for a fiscal year 1997 appropriation of $750,000 for DOD to support the San Joaquin Valley Region PM–10 Air Quality Study.

PREPARED STATEMENT OF COLORADO STATE UNIVERSITY

Mr. Chairman, Members of the Subcommittee, my name is Judson M. Harper. I am Vice President for Research & Information Technology at Colorado State University, located in Fort Collins, Colorado. I appreciate this opportunity to submit my testimony for the record of proceedings on the fiscal year 1997 Department of Defense Budget. Additionally, I am happy for this opportunity to thank you for your previous support and to brief you on the activities underway at the Center for Geosciences.

The Center for Geosciences was established at Colorado State University in 1986 as a center for basic and applied interdisciplinary research in the geosciences. The initial focus of the work accomplished a the Center was on computer modeling and simulation of atmospheric and hydrologic processes, development of tools for exploring environmental concerns, and investigation of interactions between terrestrial processes and atmospheric events. The Center was funded through the Army Research Office (ARO) under the auspices of the University Research Initiative (URI) through 1992.

As you may recall, in 1992, Colorado State University sought federal support to move forward with Phase II activities at the Center for Geosciences. Funding to continue the valuable on-going research at the Center for Geosciences was authorized in Public Law 102–484 and made available pursuant to Public Law 102–396. A grant in the amount of $5 million was provided to fund the research and development activities of Phase II.

We are now seeking your support for Phase III research and development activities: work that is not duplicated elsewhere and which fills significant gaps in other DOD and civilian research programs. Phase III will cover the years 1997 through 2001. We are seeking $15 million ($3 million for each of the five years) to enable the Center to build upon the research initiated in Phase II, as well as open new initiatives in atmospheric and hydrologic research. Continued funding will ensure that valuable financial resources already committed to the Center and its substantial intellectual resources will not be wasted.

Over the years, the Center for Geosciences has developed considerable infrastructure and research talent. To date, the Center has over 50 scientific workstations, a mass-storage complex capable of handling over 500 Gbytes of research data, and a weather satellite earth station that can receive and manipulate all available weather satellite data from both U.S. and foreign systems. If the government was to initiate a new Center elsewhere, it would cost at least $5 million to duplicate the infrastructure alone. Much has been invested in intellectual talent, and the research expertise at the Center includes multidisciplinary teams engaged in the areas of radar meteorology, atmospheric acoustics, remote sensing, and hydrology.

Phases I and II of the Center for Geosciences have produced a large number of research accomplishments and technological spin-offs. Examples are:

—The ability to detect from satellites small-scale moisture regions that contribute to thunderstorm development and which can be used as input to mesoscale forecast models;

—A new data fusion tool called PORTAL, developed by soil moisture research. The Portal computer code can merge high fidelity satellite information from two satellites whose resolutions and method of data collection are totally different. PORTAL is now used in U.S. Army Space Command systems to allow various data sets to be fused or combined to improve the military operator's understanding of the atmosphere;

—A new algorithm was developed to estimate precipitation based on satellite data. This is important to flood control operations, flash flood warnings, and climatologists;

—A new rainfall estimator was developed for use with Doppler radar systems;

—A new high spectral resolution LIDAR (a device where laser light illuminates the atmosphere and the scattered laser light is used to detect the atmosphere's temperature, pressure, and moisture) was built and used to probe the atmosphere. Due to its unique design, it measures temperature profiles and atmospheric particle (aerosols) parameters much more accurately than current instruments.

Both Phases I and II of the Center were peer-reviewed by a Center Review Panel composed of scientific managers from the Army, Air Force, and Navy laboratories, and by other reviewers. The research was found to be relevant to DOD needs, of high academic quality, and non-redundant. For example, Desert Storm and IFOR operations in Bosnia identified an explicit deficiency in multi-layered cloud research as funded by NOAA, NASA, or NSF. Phase II research in these areas will be continued in significant efforts during Phase III of the Center.

Phase III will build upon current research in the areas of:

- —Developing methodology for observing fog and haze over enemy territory, including fog forecasting, which is very difficult and yet critical to military planners;
- —Developing remote sensors to understand the earth's atmosphere;
- —Utilizing LIDAR to observe the vertical structure of the earth's atmosphere;
- —Improving the knowledge of stream flows resulting from rains and impacted by soil structure and moisture content in run-off areas;
- —Understanding cloud layers, like those that so hampered Desert Storm air operations;
- —Utilizing a new NEXRAD radar to detect hail;
- —Developing a creative method of passively detecting thunderstorms by using a small array of inexpensive microphones that detect small variations in pressure at very low frequencies that result from the expansion of the atmosphere, all of which are of extreme importance to military operations.

Prepared Statement of the Fleet Reserve Association

INTRODUCTION

Mr. Chairman and Members of this distinguished Subcommittee: I thank you for the opportunity to present the priority goals established by the Fleet Reserve Association (FRA) for fiscal year 1997. The Fleet Reserve Association (FRA) is the oldest and largest enlisted military association representing the men and women of the Sea Services—the Navy, Marine Corps, and Coast Guard. Its membership of nearly 160,000 is comprised of active, reserve, and retired components of those services.

For the year beginning October 1, 1996 and ending September 30, 1997, FRA has placed the following priorities on its list of issues to be funded. Many of the issues parallel those adopted by The Military Coalition and a brief comment follows each of the recommended proposals.

LEGISLATIVE PRIORITIES

An active duty/reserve pay increase of 3 percent.—The military pay gap will close but a whisker, from 13.2 percent to 13 percent, even with a 3 percent pay raise for fiscal year 1997. The gap will continue as long as recommended pay hikes are based on the current formula, ECI minus .5 percent, with implementation delayed for 15 months. The ECI is a measure of private sector pay for the preceding 12 months and is released in October of each year by the Department of Labor (DOL). Recommendations for the next military pay hike are presented by the Department of Defense (DOD) 3-to-4 months later, authorized and funded another 8 or more months down-the-road, and not activated until January 1, one year and 3 months following the DOL release. Meanwhile, the civilian sector is in receipt of another pay raise. Unless Congress provides for higher increases to military pay than determined by the ECI or Administration, or amends the current formula, military pay will always lag behind comparability with the civilian sector.

Close the BAQ gap.—Congress needs to add additional increases to Basic Allowances for Quarters (BAQ) by at least one (1) percent each year until the housing allowance gap is closed. Even with the 5.2 percent increase to BAQ for fiscal year 1996, military members are still paying 19.6 percent of housing costs out-of-pocket. Current law provides that members should pay 15 percent out-of-pocket, while BAQ covers 65 percent and Variable Housing Allowances (VHA) 20 percent. Hopefully, Congress will agree to narrow that gap further this coming fiscal year.

Fund POV storage, pickup mileage and catalytic conversions for certain members of the Uniformed Services.—Today's All-Volunteer Force (AVF) is composed of uniformed personnel who emulate America's social mores. Every person old enough to drive desires and purchases an automobile as soon as they believe they have enough money for a down payment. As they grow older and assume responsibility for a family, the automobile becomes a necessity. So we have many service members with privately-owned vehicles that require storage when they deploy, or receive overseas or temporary duty assignments for extensive periods and are not authorized to take their automobiles with them. For those who can take them, their POV's must undergo catalytic conversion. Since service members are serving at the pleasure of the applicable military department, funds should be made available to provide adequate storage facilities or catalytic conversions (or reimbursement therefor) for one of their vehicles. Additionally, FRA believes that it is only fair that members be reimbursed for mileage incurred to travel to the point of debarkation to pickup their POV's.

Appropriate full funding for the Transition Assistance Program (TAP).—FRA is extremely concerned that Congress has made the initial move to terminate TAP while it continues to be of need for uniformed members departing the military services as a result of "downsizing." As long as Congress continues to endorse DOD's requests to reduce military manpower strengths, the Transition Assistance Program is a real necessity. It's there to assist young men and women who volunteered to serve their country but find that their respective service no longer needs them. FRA believes that it is heartless to send them back to civilian life when most have no experience seeking employment or any idea regarding the necessary skills to help them find employment. From what FRA can gather, the program generates cost-savings. Based on 1995 figures obtained by the Association, more than $100 million was saved in funding unemployment compensation because TAP provided job counseling and placement for most of those being discharged or released from active duty. At a cost of $40 million in fiscal year 1997, FRA strongly urges Congress to keep this program intact until DOD has completed its "downsizing" of military manpower strengths.

Provide full funding for the Relocation Assistance Program (RAP).—FRA suggests that Congress may be somewhat confused in relating the Relocation Assistance Program (RAP) with the Transition Assistance Program (TAP). They are as different as night and day. RAP was enacted to assist uniformed personnel when transferring from one military installation to another. It is not only confusing but bewildering for most to be assigned to a new installation and not know who, what, where, why, or how. RAP is there to assist in guiding the member and family throughout the checking-in process. Much time is spared as a result of the member and family being advised of housing availability, where to go, and how to have utilities turned on or hooked up, child care, community and family services, the location of MWR facilities and available programs, etc. RAP goes a long, long way in helping to ensure that each service "takes care of its own." What better way to enhance the morale and readiness of the uniformed military family than to let them know wherever they go they'll always be welcomed. The program is a great retention tool well worth the $18.5 million appropriation.

Provide funds to support military manpower end strengths at fiscal year 1996 levels.—FRA urges Congress not to reduce military manpower end strengths beyond fiscal year 1996 levels. Since 1989 manpower strengths have been reduced 28 percent while operation tempos increased 143 percent. The Services barely have sufficient numbers to sustain the level of deployments, training exercises, and other operational commitments. There is no justification whatsoever to continue "downsizing" unless the CINC's and services are required to do likewise with their operation tempos. To support this recommendation, FRA directs the Subcommittee's attention to the PersTempo Section of the October 1995 Report of the Defense Science Board Task Force on Quality of Life.

BAQ/VHA for members in pay grade E–5 assigned to sea duty or substandard quarters.—A visit to any ship or military installation will open eyes as to the poor conditions incurred by many billeted aboard ship or residing in substandard quarters. FRA firmly believes that all service members, regardless of grade, should be reimbursed for having to live under other than normal conditions when not in a combat or temporary (less than six (6) week) environment. Congress does provide some relief for military families residing in substandard quarters by returning to them one-fourth of their BAQ forfeiture in cash. However, realizing there are not sufficient funds to cover all hands, FRA recommends that members in pay grade E–5 be considered for BAQ/VHA payments. E–5's are classified as career members and their retention is a major concern of the services. One must not forget the period 20 years ago when thousands of career uniformed members voted with their feet. The Navy was unable to get its ships to sea and the Army complained of a hollow combat force. The Nation can ill afford another exodus of well-trained and qualified career-oriented military personnel. It's better to be safe now than sorry later.

Sea pay or partial BAQ for junior enlisted military personnel assigned to sea duty.—(This item is not yet endorsed by The Military Coalition but is of paramount interest to FRA as an ombudsman for Sea Services personnel.) Under current law sea pay is authorized for members in pay grade E–4 and above assigned to sea duty. Members in pay grades E–1 through E–3 are not so entitled and FRA believes this to be a Congressional oversight. These young men and women normally face more arduous duty and cramped quarters than experienced by their shipmates in pay grade E–4. If they were incarcerated prisoners, the hue and cry against such "deplorable conditions" would surely produce an almost immediate response. FRA hopes its "hue and cry" today will have Congress review the current policy toward these young Sea Service members and cause the adoption of an amendment to Sea Pay allowances that includes E–1's through E–3's.

Appropriate funds to provide uniformed service members a Cost-of-Living Adjustment (COLA) to their retired pay effective December 1, 1997.—FRA was one of the organizations to testify in the 1970's against favoring COLA's over the "recomputation" method (increasing military retired pay based on pay increases applied to active and reserve pay). Congress at that time believed the "recomputation" method would be more costly than using the COLA formula. It soon realized the error of its way but instead of reverting to "recomputation," began an almost annual process of reducing the amount of the adjustment. Since then, the result has been smaller COLA's for the retired pay of Uniformed Service members than COLA's for Social Security and Veterans Pension and Compensation payments. FRA has no real complaint against everyone sharing cuts in COLA's, but it does take umbrage with singling out military retirees as "budget busters." The Association encourages this distinguished Subcommittee to appropriate funds for uniformed members' COLA's at the same level authorized for retired federal employees, Social Security recipients and veterans and survivors in receipt of pensions or compensation—and at the same time as the latter group becomes eligible for their adjustments.

Survivor benefits.—FRA seeks to have funded annuities for "forgotten widows" of deceased active duty and reserve members of the Uniformed Services. The military's "forgotten" widows are those spouses of deceased active duty and reserve members of the Uniformed Services who failed to enroll in a survivor benefit program. There are any number of factors contributing to this failure to participate; costs of the program, insufficient knowledge of its value, opposition to the "Social Security offset," etc. For whatever reason, military widows should not suffer the indignity of being forgotten after their service and sacrifices while married to their uniformed service spouses. The Civil Service Survivor Benefit Plan resolved the problem of its "forgotten" widows nearly 39 years ago (June 25, 1958). It appears to FRA that it's way past the time to address the plight of our military's "forgotten" widows. The Association passes the challenge to this distinguished Subcommittee for resolution.

RESERVE ISSUES

Retirement credit for earned inactive duty points.—The current retirement program for members of Reserve components was established under the provisions of Title 10, Public Law 810 in 1948. Typical members of the National Guard and Reserve accrue Inactive Duty points well in excess of the 60 point maximum creditable annually toward retirement. Under the Total Force concept, the role of the Reserve components has changed significantly creating a requirement for additional paid drill assemblies. The current limit does not now reflect the training and proficiency demands on Reservists to meet readiness and mobilization standards. If authorized for 75 days, as recommended, FRA requests that adequate funds be appropriated to cover additional costs.

Increase the number of days Reserve members may access commissaries.—FRA is supportive of the DOD recommendation to extend use of commissaries to members of the Reserve. The extension is to be on a test basis at two selected military installations. If authorized, hopefully this distinguished Subcommittee will provide any additional appropriations required.

Provide equity in the retirement of both commissioned and enlisted members of the Active Guard and Reserve (AGR).—Current law provides that AGR officers may retire at the highest grade held if he/she served in that grade for a period of six (6) months. Enlisted AGR's who accepted grade reductions to remain in the AGR program during downsizing are not authorized to retire at the highest grade held satisfactorily. If enlisted AGR's are authorized retirement at the higher grade, FRA supports any increased funding required to provide equity between officers and enlisted AGR's.

No restriction on the receipt of BAQ for certain Reservists.—Proposals are being considered to eliminate BAQ payments to reservists performing short durations of active duty. Currently such reservists are in receipt of these payments in the same manner as provided active duty members. FRA is opposed to the elimination of BAQ payments to these reservists and requests that this Subcommittee continue to support fundings for same.

MILITARY HEALTH CARE

In 1966 Congress enacted the Civilian Health and Medical Program for the Uniformed Services (CHAMPUS) to improve the delivery of health care to military beneficiaries. At the same time, it adopted language terminating the use of CHAMPUS for those beneficiaries 65 years of age or older. The objective was to have this group utilize military treatment facilities (MTF's) or Medicare. Remembering the promises of "free" medical care for life made to them by military officials, most chose to retire near military installations where they and their eligible family members could use MTF's. Over the years, the reduced availability of care in MTF's for older beneficiaries forced many of them to seek health care services elsewhere. However, they still prefer to receive care from MTF's, and for those continuing to be seen in these facilities, most are contributing to Medicare and paying premiums for Medigap coverage. MTF's are not able to recover any of the funds paid for either program. FRA and other associations comprising The Military Coalition are seeking authorization for payments from the Health Care Financing Administration for care given to Medicare-eligible military beneficiaries. FRA supports legislation that proposes a Medicare-subvention demonstration test and the Subcommittee's favorable endorsement of this demonstration is encouraged.

Expand the mail-order pharmacy program.—FRA recommends the expansion of the program to cover all Uniformed Services beneficiaries. An on-going demonstration program continues and should it prove to be beneficial to the federal government as well as its participants, the expansion could be a partial fix to repairing decreasing military health benefits for Medicare-eligible beneficiaries. The Subcommittee's support for the expanded program is requested.

Provide funds for opening the Federal Employees Health Benefit Plan (FEHBP) to Medicare-eligible uniformed services beneficiaries as an option.—This group of seniors not having access to MTF's or the military's new Tricare Program should have the option of enrolling in FEHBP in lieu of Medicare. Such a recommendation is being offered. If authorized, FRA seeks this Subcommittee's full support and advocacy.

CONCLUSION

Mr. Chairman. This concludes the Association's list of funding priorities for fiscal year 1997. I close by expressing the sincere gratitude of my Shipmates who render a salute to you and the other distinguished members of the Subcommittee for a job well done. This Subcommittee has over the years stood tall in support of the men and women of the Nation's Uniformed Services. The best of support services exist because our friends in Congress unselfishly and, I might add without remuneration, carried the fight to the Senate floor and won the battles against great odds. Thank you ever so much.

PREPARED STATEMENT OF SGT. MAJ. MICHAEL F. OUELLETTE, USA, (RET), DIRECTOR OF LEGISLATIVE AFFAIRS, NON COMMISSIONED OFFICERS ASSOCIATION OF THE UNITED STATES OF AMERICA

Mr. Chairman, the Noncommissioned Officers Association of the USA (NCOA) appreciates the opportunity to present testimony to this subcommittee concerning fiscal year 1997 Defense Appropriations. Today, NCOA will comment on a number of compensation items in the Administration's fiscal year 1997 budget request sent to Congress on March 4, 1996. The Association will also present a number of other personnel, compensation, medical care and quality-of-life funding concerns and offer some recommendations. Hopefully, the recommendations will be of value and assistance to the members of this subcommittee during deliberations.

NCOA is a federally-chartered organization representing 160,000 active-duty, guard and reserve, military retirees, veterans and family members of noncommissioned and petty officers serving in every component of the Armed Forces of the United States; Army, Marine Corps, Navy, Air Force and Coast Guard. Incidentally, the Association's positions on the issues discussed and the recommendations offered are direct results of communication with our members and Senior Enlisted Advisors (SEA's) of the armed forces. The Association hopes its statement presenting enlisted views will be helpful to the subcommittee.

ACTIVE FORCE ISSUES

NCOA wishes to extend its appreciation to the members of this subcommittee for their efforts on behalf of enlisted men and women of the armed forces. The actions of this subcommittee to fund a 2.4 percent military pay raise; a separate 5.2 percent increase in Basic Allowance for Quarters (BAQ) and Variable Housing Allowance (VHA) rate protection for 1996 were improvements that significantly impact military personnel and their families. NCOA clearly understands the funding restrictions placed on this subcommittee; however, sincerely hopes the subcommittee members make every attempt to "maintain the momentum" created in 1995.

Military pay raise.—NCOA is pleased with the Administration's Budget Request to provide members of the armed forces with a 3 percent pay raise on January 1,

1997. The Association remains concerned that military pay raises have lagged a cumulative 13 percent behind private sector pay growth, as measured by the Bureau of Labor Statistics' Employment Cost Index (ECI). Although a 3 percent pay raise would not substantially reduce the pay gap, it would go a long way to at least hold the line in 1997. Therefore, NCOA recommends this subcommittee appropriate funds to support a full 3 percent or higher military pay raise in fiscal year 1997.

Basic allowance for quarters (BAQ).—NCOA is concerned that a 3 percent increase in BAQ would only cut out-of-pocket expenses of military members and their families by about four-tenths of a percentage point or to a total of 19.2 percent. Even after the separate 5.2 percent increase in BAQ provided this year, military people are currently paying approximately 19.6 of their housing costs themselves. Last year's effort was the first attempt to reduce out-of-pocket expenses to the desired 15 percent level by the year 2001. Although NCOA is encouraged by the actions of DOD and Congress to recognize and respond to the situation, the Association believes any situation resulting in out-of-pocket costs to military personnel must be resolved in the shortest period of time. The current plan to correct this situation by the year 2001 is not acceptable to NCOA or enlisted people since they will continue to lose monthly income while the debate regarding the best way to resolve the issue continues. Therefore, NCOA recommends this subcommittee fund another separate 5.2 percent BAQ increase in 1997.

Improved travel allowances.—NCOA completely supports the efforts of some congressional members and DOD to improve travel reimbursement to military personnel. Funding of proposed increases in the dislocation allowance and temporary lodging and mileage reimbursement rates will significantly reduce out-of-pocket expenses since reimbursement today covers only 65 cents on the dollar. NCOA again believes this situation to be one requiring immediate resolution and recommends this subcommittee rectify this shortfall in travel related allowance for military personnel.

Payment of BAQ/VHA to single E–5 sailors on sea duty.—NCOA appreciates the efforts of this subcommittee to fund the payment of BAQ/VHA to single sailors in the grade E–6. This payment was previously authorized for payment to single sailors E–7 and above. There are many single E–5 sailors who are required to reside in off-base housing while assigned to shore duty and experience the same problems as the single E–6 did prior to correction of the situation last year. NCOA recommends this subcommittee extend and fund payment of BAQ/VHA to single E–5 personnel assigned to sea duty. This type of action will greatly improve the perceptions of many single military members that the Congress is often more interested in issues relating to military family quality-of-life improvements.

Cost-free storage of privately owned vehicles (POV's) during periods of deployment.—This is another out-of-pocket expense NCOA wishes to point-out to the subcommittee that is currently being levied upon many single military members as a result of deployment. Many single members owning a POV are forced to make a number of decisions when alerted for deployment. Many must continue to make monthly payments and put their POV in storage at their own expense prior to shipment. Few are able to do both. Consequently, some are forced to expeditiously sell their vehicle at a significant loss prior to departure. The option of cost-free storage for those who choose to retain ownership of the vehicle would be most beneficial and NCOA recommends the subcommittee consider providing funding to support implementation of the alternative.

NCOA has attempted to highlight only those active-duty issues where favorable funding action by this subcommittee can reduce out-of-pocket expenses for military personnel. Of course, any reduction of the costs associated with each issue would be most beneficial to enlisted members of the armed forces. NCOA urges the members of this subcommittee to expeditiously resolve the issues outlined in NCOA testimony. Military members should not be placed in a situation where they are forced to incur out-of-pocket expenses directly related to service in the Armed Forces of the United States.

MILITARY RETIREE ISSUES

Military retiree cost-of-living adjustments (COLA's).—NCOA is most appreciative of the efforts of this subcommittee in 1995 to provide COLA equity to both military and Federal civilian retirees. NCOA recommends this subcommittee provide funding to assure military retirees receive COLA's on January 1, 1997, as specified in the Fiscal Year 1996 Defense Authorization Act.

Concurrent receipt.—NCOA supports a change in law to permit military retirees to receive both military retired pay and veterans' disability compensation simultaneously without offset. The Association, on the other hand, fully understands the cost of full implementation of Concurrent Receipt would be cost prohibitive during these time of deficit reduction initiatives. NCOA nonetheless believes military retirees with VA rated disabilities are being penalized by the current dollar for dollar offset criteria. The Association recommends the subcommittee provide funding to permit just those military retirees who are rated 100 percent disabled by the VA be authorized to receive both military retired pay and VA disability compensation.

Military retiree dental plan.—One of the major concerns received by NCOA from military retirees is the non-availability of dental benefits following retirement from active-duty. Military retirees earned a space-available dental care benefit as a result of career service. Base closure actions and the reduction of medical appropriation to the Defense Department have made space-available dental treatment in Military Dental Treatment Facilities virtually non-existent. NCOA recommends this subcommittee provide funding to the Defense Department to either allow military retirees and their families the option to enroll in the current Military Dependent Dental Program or provide military retirees and their families with access to a contract dental plan where large scale participation could result in reduced premiums.

MILITARY MEDICAL CARE ISSUES

NCOA remains concerned that the costs of providing free "lifetime" medical care as a benefit of career service are being passed on to military beneficiaries. The military's TRICARE Program will pass on co-pays to active duty families and both co-pays and annual enrollment fees to military retirees and their families. NCOA is reluctant to support any medical care option other than the "promised" free lifetime benefit virtually all have earned. The fact of the matter is that TRICARE appears to be the "only game in town" and the closest thing to the earned medical care benefit active-duty family members and eligible retiree beneficiaries can expect. Therefore, NCOA has no choice but to work with DOD and the Congress in an effort to recommend changes or alterations to the TRICARE Program which would make it more palatable to all eligible military beneficiaries. In this regard, NCOA offers the following recommendations for consideration by the members of the subcommittee:

—Medicare Subvention legislation must be enacted in order to remove the "lock-out" stipulation of TRICARE as it applies to the age 65 Medicare eligible military retiree.

—Provide funds to DOD which would enable the department to provide 100 percent health care coverage to the family members of military personnel assigned to remote or isolated areas where enrollment in the TRICARE Prime option is not feasible.

—Provide funding to DOD for the purposes of improving the reimbursement levels associated with the TRICARE Standard or Extra options.

—Provide funds to permit DOD to offer the TRICARE Standard option or CHAMPUS as a second-payor to Medicare for the age 65 military retiree excluded from participation in the TRICARE Program without regard to catchment area limitations.

ARMED FORCES RETIREMENT HOMES

Mr. Chairman, NCOA requests the assistance in two matters concerning the operation and funding of the Armed Forces Retirement Homes. As the members of this subcommittee known Congress acted in 1991 to combine the U.S. Soldiers and Airmans Home (USSAH) in Washington, D.C. and the U.S. Naval Home (USNH) near Gulfport, MS, under a single Armed Forces Retirement Home (AFRH) Board of Directors. Prior to their consolidation, USSAH operating costs were provided from a trust fund supported by involuntary donations from the enlisted members of the Army and Air Force, and by fines and forfeitures collected from enlisted members of the Army and Air Force as a result of non-judicial punishments or courts martial. USSAH did not receive any appropriated funds support. Conversely, the U.S. Naval Home received appropriated funds to support its operations as an agency of the U.S. Navy.

Congress also ordered as a product of the consolidation that both homes be operated from the trust fund that previously supported only USSAH. Concurrently, Congress authorized the collection of involuntary contributions from sailors and Marines to provide additional financial support to the trust fund. However, an unfortunate set of circumstances have combined to make these donations inadequate.

Military force reductions have reduced contributions to the trust fund by more than $5 million annually. In addition, tremendous improvements in force quality have led to a reduction in the number of non-judicial punishments and courts martial. As a result, the trust fund is substantially short of the money needed to operate the homes through the next century. Accordingly, NCOA seeks subcommittee support of it's recommendation that a one-time appropriation of $59 million be provided to sustain the retirement homes or alternatively, an appropriations authorization of $10 million to $12 million per year over the next five years.

Additionally, NCOA asks the support of this subcommittee to move the Appropriations Committee responsibility from the Subcommittee on Health and Human Services to this subcommittee. Currently, oversight and authorizations for the operation of the Armed Forces Retirement Homes is the responsibility of the House National Security Committee and the Senate Armed Services Committee. NCOA believes appropriations for the home trust fund should remain within the realm of defense as well. This recommendation is also supported by the AFRH Board, the Coopers & Lybrand study and Defense Comptroller Dr. John Hamre.

CONCLUSION

NCOA sincerely appreciates the opportunity to express its views on the many personnel, compensation, medical care and quality-of-life issues highlighted in this statement. The Association also appreciates the hard work of this subcommittee to reduce out-of-pocket expenses of military personnel and their families. As difficult as it might be, it is important the momentum gained last year, be continued during fiscal year 1997. NCOA is confident the members of this subcommittee will always respond to the needs and well-being of the enlisted members of the armed forces.

Thank You.

PREPARED STATEMENT OF THE MILITARY COALITION

Mr. Chairman and Distinguished Members of the Committee: The Military Coalition, a consortium of nationally prominent military and veterans' organizations representing five million current and former members of the seven uniformed services—officer and enlisted, active, reserve, retired and veterans, plus their families and survivors—thanks the Chairman and distinguished members of the Defense Subcommittee of the Senate Appropriations Committee for holding these important hearings. The testimony provided here represents the collective views of The Military Coalition (TMC), on behalf of the following organizations: Army Aviation Association of America; Air Force Association; Association of Military Surgeons of the United States; Association of the United States Army; Chief Warrant Officer and Warrant Officer Association; United States Coast Guard; Commissioned Officers Association of the United States Public Health Service, Inc.; Enlisted Association of the National Guard of the United States; Fleet Reserve Association; Jewish War Veterans of the United States of America; Marine Corps League; Marine Corps Reserve Officers Association; Military Chaplains Association of the United States of America; National Guard Association of the United States; National Military Family Association; National Order of Battlefield Commissions; Naval Enlisted Reserve Association; Navy League of the United States; Reserve Officers Association; The Retired Enlisted Association; The Retired Officers Association; United Armed Forces Association; United States Army Warrant Officers Association; USCG Chief Petty Officers Association;Veterans of Foreign Wars.

The Military Coalition wishes to express its gratitude for your unwavering support of members of the uniformed services. Without your championship, the quality of life of service members would have deteriorated immeasurably over the last few years. However, even with your past support, much remains to be done to ensure the services' continued future ability to attract and retain the kinds and numbers of personnel required to sustain a high-quality career force for the long term.

ACTIVE FORCE ISSUES

Military pay raise.—For the first time in four years, the fiscal year 1997 President's Budget proposed a military pay raise that does not lag the pay growth experienced by the average American worker. The Military Coalition welcomes this proposal, but believes strongly that the comparability principle must be embraced for the long term, not just for one year.

The unfortunate fact is that the last several Administration budget submissions have proposed freezing pay for fiscal year 1994, capping the raise 1.5 percentage points below comparability for fiscal year 1995, and capping it .5 percent below comparability for fiscal year 1996. Even in the fiscal year 1997 budget, the proposal is to return to the practice of less-than-comparability raises from fiscal year 1998 on. We take some solace that, thanks to the efforts of Congress, and to this committee in particular, pay raises in recent years have not been depressed as severely as the

Administration originally proposed. However, the fact remains that service members have been given short shrift in this area.

Since 1982, the last time that military and civilian pay levels were judged "reasonably comparable," military pay raises have been capped below the average American's pay increase in 11 of 14 years. The cumulative lag now exceeds 13 percent.

At the same time we have been depressing active force compensation levels, we have been placing these forces under more and more stress. Their career progression and promotion opportunities have been threatened by massive force downsizing. Yet their mission has not been downsized, so service members and their families have suffered longer working days and a three-fold increase in deployment requirements.

This situation has brought a new and ironic meaning to the phrase "doing more with less." And it is a situation that cannot continue without paying a significant price in retention and readiness. While we have asked service members and their families to give more and more of themselves, we have paid them as if they had no other career choices. We were able to do this because we could afford to lose many of them during the drawdown years. With a stabilizing force and an improving private sector economy, that is no longer true.

Simply put, the Nation can no longer expect to retain a better-than-average force with lower-than-average pay raises. The Military Coalition appreciates that continuing fiscal concerns make it difficult to establish a goal of "buying back" the existing pay raise comparability gap. However, we must make a long-term commitment to preventing it from growing any further.

The Military Coalition urges the subcommittee to ensure that, both for fiscal year 1997 and for the years beyond, military pay raises at least match the pay raises enjoyed by the average American worker, as indicated by the Employment Cost Index.

Housing allowances.—Housing allowances for service members stationed in the United States consist of two components: the Basic Allowance for Quarters (BAQ) and the Variable Housing Allowance (VHA). The BAQ was intended by Congress, as indicated in the Defense Authorization Act Conference Reports of fiscal years 1985 and 1988, to provide members an allowance equal to 65 percent of the national median housing cost reported by members in the same grade. The VHA is a supplemental allowance in an amount that differs by location to reflect variabilities in local housing costs across the Nation.

Although the two allowances work together to help reimburse members for median housing expenses incurred at each U.S. location, each allowance has a separate adjustment mechanism. The BAQ is adjusted at the same time and by the same percentage as basic pay adjustments. VHA rates are adjusted at the same time as BAQ, but the local adjustments may rise or fall depending on the relationship between local vs. national median costs for each grade. Total VHA funding is adjusted each year by the Military Housing Cost Index (MHCI), which reflects rental and utility cost growth across the country as measured by the Bureau of Labor Statistics, and weighted by the military population at each location. The stated intention of Congress in developing the VHA was that the combination of BAQ (65 percent) and VHA (20 percent) would offset 85 percent of members' median housing expenses. Unfortunately, the intended BAQ level has not been sustained over time.

Because it is adjusted by the same percentage as basic pay each year, changes in BAQ have borne no relationship to changes in housing costs. Further, as previously addressed, basic pay raises typically have been depressed below the percentage needed to maintain comparability with private sector pay growth. This, in turn, had depressed BAQ growth so that BAQ rates in 1994 comprised less than 60 percent of national median housing cost for most grades—well below the intended 65 percent. Because of the depressed allowances, service members have absorbed the extra five percent out of their pockets.

Last year, the Administration and Congress embarked on a multi-year plan to restore BAQ levels to the intended 65 percent of national median housing costs. To that end, Congress approved a 5.2 percent BAQ increase for fiscal year 1996, which "bought back" approximately one-fifth of the BAQ shortfall. This year, the Senate Armed Services Committee has proposed continuing the BAQ correction plan at a somewhat more modest pace—proposing a 4.0 percent BAQ increase for fiscal year 1997. The House National Security Committee has proposed a larger 4.6 percent BAQ increase, aimed at sustaining the same BAQ restoration schedule set in fiscal year 1996.

The Military Coalition would prefer sustaining the fiscal year 1996 BAQ restoration schedule, but also supports the 4.0 percent BAQ increase recommended by the Senate Armed Services Committee as representing substantive progress toward restoring the original BAQ standard (65 percent of national median housing cost for each grade) intended by Congress.

Permanent change-of-station issues.—The Military Coalition is very concerned that service members continue to incur significant out-of-pocket costs in complying with government-directed relocation orders. Department of Defense surveys show the government typically reimburses only two-thirds of the costs members actually incur in such moves.

By any comparison, the service member is being short-changed in this area. Federal civilian employees receive much more substantial reimbursements in conjunction with government-directed moves, up to and including reimbursement for house-hunting trips and homeowner closing costs.

It is an unfortunate fact that permanent change of station mileage allowances and per diem rates have not been adjusted in the last 10 years. The authorized duration for paying Temporary Lodging Expense allowance (TLE) was increased from 4 to 10 days several years ago, but the maximum amount payable per day has not been adjusted since 1986. These important reimbursements are sadly overdue for adjustment, and service members are paying an unfair price for this delay.

The Senate Armed Services Committee has noted the reimbursement shortfalls and has recommended modest adjustments to improve automobile shipment reimbursements and to authorize storage of a member's personal vehicle when the member is being assigned to a location where shipment of the vehicle is not authorized.

The Military Coalition endorses the recommendations of the Senate Armed Services Committee concerning automobile storage and mileage reimbursement, but urges a comprehensive updating of permanent change-of-station reimbursement allowances in the immediate future to ease the financial burdens currently being imposed on service members.

It has taken DOD's Relocation Program several years to mature into a genuinely useful information and assistance program. The Military Coalition believes that the new SITES 2.0 program will produce the real-time interactive assistance program families have requested. It would be a false economy to curtail programs provided to relieve the stress of one of the most difficult times for military families. In this regard, the loss of the Relocation Program would be devastating to families. If retention is negatively affected, the costs to the government would be significantly higher than funding a full service Relocation Program.

The Military Coalition supports fully funding the Relocation Program.

The Coalition also strongly supports the authority given to DOD in Public Law 104–106 to conduct a pilot program to re-engineer household goods moves. The volume of complaints from active duty families regarding the movement of their household goods has been steadily increasing. The complaints include: reduced quality of services provided for the move; costs incurred in attempting to replace or repair damaged or lost property; time and money consumed in getting repair/replacement estimates (three are required); inexperienced packers; intimidating packers in members' homes; and the inability to schedule a move to meet the service member's reporting date at the new duty station. Military families required to make frequent moves shouldn't have to accept shoddy performance, and it is time to address this problem head-on.

The Military Coalition supports investigating avenues to improve performance of firms contracted to move members' household goods, and urges full use of pilot program authority to identify means of providing members better service in this important area.

Commissaries.—Surveys consistently indicate that the career incentive value of the commissary benefit is second only to military retirement and health care. In fact, studies have shown that the commissary system delivers at least two dollars in compensation value for every dollar of appropriated fund support. The commissary benefit also provides significant additional "psychological value" that reinforces the sense of reciprocal commitment between the military institution and its members and plays a clear role in retention decisions.

Service members and their families are understandably concerned over the many proposals in recent years to reduce federal support for commissaries in ways that would significantly reduce its compensation value. These proposals produced such concern in the active and retired force that the Secretary of Defense intervened to rebuff his budget staff and personally reassure the military community that he views maintaining the current commissary benefit as vital to retention and readiness. In the long run, such proposals would not achieve the desired savings, but would cost more money by reducing retention and increasing replacement/training costs.

We agree strongly with the views of the Senate Armed Services Committee, as expressed in section 272 of its report on the fiscal year 1997 Defense Authorization Bill. The Military Coalition supports initiatives to improve management of the Defense Commissary Agency, but these must not erode the value of the commissary benefit, reduce services to patrons, or increase commissaries' vulnerability to privatization or consolidation with the exchange system. In this regard, privatization or consolidation must, by definition reduce the benefit to patrons, since the loss of subsidy can only mean higher prices on commissary shelves. Efforts that yield such results are penny-wise and pound-foolish, and risk long-term morale, retention and readiness costs that far outweigh any short-term subsidy savings.

The Military Coalition urges the Subcommittee to oppose reducing appropriated fund support for the commissary system in ways that reduce the commissary's compensation/retention value.

Impact aid.—The Military Coalition has never advocated funding the entire cost of Impact Aid for military children in the DOD budget. When placed in competition for scarce defense dollars for readiness, training, personnel benefits and force modernization, Impact Aid funding likely would fare no better in the DOD budget than it has in the Department of Education budget. It also seems inappropriate to set up two or three bureaucracies to act as pay-masters for one program. Native American children and low rent housing children also qualify for Impact Aid and the funds for them must be administered by some agency.

The 1995–96 school year has produced financial disasters in many Impact Aid districts, some of which will not be fully apparent for years. The appropriation for the Impact Aid program has been subject to the numerous Continuing Resolutions which have also reduced the amount of money that could flow to these school districts. Since Impact Aid is not a forward-funded program, school districts which normally receive almost all of their yearly federal funding by December are now operating extremely short of cash, with no idea how to budget for the next school year. Many districts have been forced to spend reserve funds normally used for construction and major renovations. Some have even had to cut staff and curtail programs. This situation is extraordinarily unfair, both to military families' children and to the civilian communities in which military installations are located.

The Military Coalition requests the Subcommittee's advocacy for military children within the total appropriations process. Also, we must again request DOD supplemental funding, particularly for school districts most heavily impacted with military children, until a way can be found to encourage advocacy on the part of the Department of Education and others in the Administration.

RETIRED FORCE/SURVIVOR ISSUES

Continuing retired pay threats undermine readiness.—The Military Coalition continues to be concerned about the very serious implications for morale and readiness of seemingly never-ending proposals to cut back on military retirement entitlements.

In the past year alone there have been at least seven different proposals to curtail military retired pay under serious consideration by the Congress. Some would have reduced or delayed COLA's for current active and retired members, some would have applied severe COLA reductions or retired pay formula changes for new service entrants, and others entailed "means-testing" COLA's by establishing a maximum retired pay COLA base.

While none of these proposals was enacted by the Congress (in fact, the Fiscal Year 1996 Defense Authorization Act significantly reduced the discriminatory COLA delays previously passed for fiscal year 1996–98, and the Senate's version of the fiscal year 1997 Act would fully restore the 1998 COLA), some votes were perilously close, raising considerable and persistent fears among active and retired members that the government may renege on the past retirement promises that induced members and retirees to pursue their service careers. The speed and secrecy with which these proposals were constructed, introduced, modified and voted upon convinced many members that the government feels no obligation to keep its past commitments—even after the members affected have fulfilled their extended career service obligations.

The Military Coalition is very disturbed at how the full set of circumstances that led to the massive retention and readiness problems of the late 1970's now seems to have ominously recurred. First, the massive personnel drawdown and budget cutbacks; second, the extended capping of military pay raises below both inflation and private sector pay growth; and now the repeated attacks on the retirement system that surveys consistently show is the Services' single most powerful career retention incentive—the same kinds of attacks that generated the pervasive "erosion of benefits" mentality that proved the final blow to recruiting and retention in the late 1970's.

We are extremely concerned that the proponents of these initiatives have inserted or sought to insert them in budget reduction vehicles with little or no input from the committees with primary oversight responsibility for the uniformed services.

Proposals to fundamentally modify the military retirement system by eliminating or substantially reducing COLA's for selected groups of uniformed service retirees reflect a lack of understanding of uniformed personnel and readiness requirements and the unique demands of a service career. The readiness problems of a superannuated force at the beginning of World War II generated the current retirement system to ensure maintenance of a young and vigorous career force. To this end, all but a very few members are compelled to retire in their forties, often with twenty years of training in specialties that have only limited private sector application.

Studies show such mid-life career changes typically leave military retirees with second-career incomes trailing well behind those of single-career civilians with similar education, responsibility and earnings histories. These conditions are compounded during periods of massive force drawdown and substantial unemployment. For members who have endured such mid-life career disruption on top of twenty-plus years of hazardous duty, long hours, frequent moves, family separations, overseas service, and sacrifice of many personal freedoms taken for granted by other Americans, COLA-adjusted retired pay is their only hope for any kind of second-career financial security.

The Military Coalition urgently recommends that the Subcommittee speak out against enacting changes in the area of military retirement without benefit of full hearings by the Armed Services Committee and this Subcommittee. Such hearings are essential to afford adequate consideration to commitments made to currently serving and retired members, future retention and readiness impacts, the unique nature of military service and its inherent sacrifices, and the projected impacts of retirement reforms already enacted.

HEALTH CARE

Defense health program account shortfall.—The Military Coalition is aware that the Administration's budget request for fiscal year 1997 includes a cut of almost one-half billion dollars in the Defense Health Program Account. A funding cut of this magnitude can only result in reduced services to eligible beneficiaries. While the House authorized restoration of most of this shortfall in its version of the Fiscal Year 1997 Defense Authorization Act, the Senate Armed Services Committee had less funding leeway.

The Military Coalition believes that the Defense Health Program should not sustain such a reduction, and urges the Subcommittee to take every possible measure to restore the shortfall.

Health care equity for Medicare-eligibles.—Uniformed services retirees have been told repeatedly that they have a right to medical care in military hospitals following retirement. In brief, this lifetime right had its genesis in the U.S. Navy and U.S. Marine Corps, where service members made a monthly contribution to pay for such care over a period of 145 years—a contribution that continued after retirement. When the contribution was discontinued in 1943, the hearings made clear that members were to retain the right to care. It is equally clear that members of the other services have always been led to believe they would be provided care for life in military treatment facilities. The assurance of such care was one of the important factors in inducing service members to endure the extraordinary demands and personal sacrifices inherent with a career in uniform.

In 1965, Congress enacted Medicare legislation. One year later, as a means of further improving the military health benefit for non-active duty beneficiaries, Congress established the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). In adopting this legislation and limiting CHAMPUS to age 65, the House Armed Services Committee reasoned "* * * military retirees would continue to have two medical programs upon reaching age 65—the use of the military medical facilities on a space-available basis and the Social Security Medicare program. Under the circumstances, it appears that the two remaining medical sources would provide a fair program of assistance."

The government historically has offered extensive health care promises as a career service incentive. Since 1956 (and as late as 1993), the services' recruiting and retention brochures have stressed that career military members will be eligible for free lifetime health care. A 1991 Congressional Research Service report concluded that the "free health care for life" promise was functionally true and had been used to good advantage for recruiting and retention. Dr. Stephen Joseph, Assistant Secretary of Defense (Health Affairs), testified before Congress in 1995 that DOD has an "implied moral commitment" to provide health care to all eligible beneficiaries.

Medical coverage second to most?—Unfortunately, the American public—and many in Congress—have the misperception that uniformed services retirees have better-than-average health care benefits. This is a myth. The uniformed services are virtually the only large employer that terminates its retirees' employer-provided health coverage when they turn 65.

In contrast, nearly all of the largest U.S. corporate and government employers provide their retirees substantial employer-paid health coverage in addition to Medicare. Data from a 1994 survey by Hay Associates (one of the nation's most-respected firms in the area of employee benefits), indicates that the majority of corporate employers provide at least some employer-paid coverage in addition to Medicare—and the larger the employer, the more they provide. The Department of Defense (DOD)—America's largest employer—does not stack up well in this department. The gap is even wider when the uniformed services' health care package is compared to the benefit afforded to employees who have retired from the very largest private sector corporations—the only civilian employers comparable to DOD. For example, the four largest U.S. corporations either fund virtually the entire health care premium (including heavily subsidized prescription drug benefits) or cap their retirees' out-of-pocket medical expenses at modest levels.

HEALTH PLANS OF THE FOUR LARGEST U.S. CORPORATIONS FOR THEIR RETIRED MEDICARE-ELIGIBLE EMPLOYEES

Corp.	No. of retirees	Employer subsidized health plan		Employer paid share of premium (percent)	Retiree deductible single/family	Retiree cost share	Other subsidized coverage		
		Retiree	Family				Vision	Dental	Prescription
GM	350,000	Yes	Yes	75–80	$300/600	Zero[1]	Yes	Yes	Yes
Ford	90,000	Yes	Yes	100	$200/250	20 percent off visits; $500 out-of-pkt cap for all other.	Yes	Yes	Yes
Exxon	36,000	Yes	Yes	95	$250/500	20 percent copay; $2,500 out-of-pkt cap	No	Yes	Yes
IBM	74,000	Yes	Yes	100	$250 ($340 hosp)	20 percent outpatient 0 percent inpatient	Yes	Yes	Yes

[1] GM plan pays all charges above Medicare payment

In a similar vein, the United States government provides significantly subsidized health care insurance coverage for retired Federal civilian employees and their families—including retired Members of Congress and retired congressional staff members. Yet, over the years, Administration and congressional cost containment efforts have progressively stripped older uniformed services retirees of nearly all DOD-funded health benefits.

For generations, military health care has been touted as second to none. It is past time to recognize that, compared to what is provided by other large employers, Medicare-eligible uniformed services beneficiaries' health care has become second to almost all others. Service members who have given their country decades of service and sacrifice deserve better.

The Military Coalition strongly recommends pursuing the following triple option approach in honoring the lifetime health care commitment:

Option 1: Tricare.—The first option is the Tricare program already authorized by Congress and under implementation by DOD. There are many "bugs" in the Tricare system that must be worked out. Tricare Prime is generally consistent with managed care plans being adopted all over the country. Tricare is a reality, so we need to make it work better for all participants. There are provisions in the Fiscal Year 1996 Authorization Act that will take steps in that direction, with more to come in the future. Major problems remain to be addressed. Retirees are increasingly being denied space-available care, and Medicare-eligible retirees and family members are barred from enrolling in Tricare Prime. DOD has some incentive to enroll CHAMPUS eligibles to reduce CHAMPUS expenses, but none to enroll Medicare-eligibles. Medicare and DOD manage their health care fiefdoms separately, and Medicare has no incentive to work with DOD, even though such cooperation would reduce overall health care costs to the taxpayer.

Option 2: Medicare subvention.—This proposal would authorize Medicare to reimburse DOD for care provided to Medicare-eligibles in DOD medical facilities. The principle behind the proposal is that, if DOD can get reimbursed for such care, it should be able to allow Medicare-eligibles to use military facilities, including enrollment in Tricare Prime. Since DOD's care is less costly than private sector care, it will actually save Medicare money—a win-win-win situation for Medicare, the taxpayers, and Medicare-eligible beneficiaries. With the moral support of Congress as expressed both in the Fiscal Year 1996 Defense Authorization Act and in the Senate Armed Services Committee's report accompanying the Fiscal Year 1997 Defense Authorization Act, our objective is to secure at least a test program for fiscal year 1997. Still, subvention will only help the one-quarter to one-third of Medicare eligible retirees who reside near military installations. There must be an initiative to help the others—who can't get care in DOD facilities and who lose their CHAMPUS eligibility (including any prescription drug coverage) at age 65.

Option 3: FEHBP–65.—This new proposal would fill in that gap by authorizing Medicare-eligible beneficiaries of the uniformed services to enroll in FEHBP. The government subsidizes 72 percent of the premium cost, so the member's share of the premium is about $1,377 per year for family coverage. This is better coverage at less cost than commercial Medicare supplements and it offers over 400 plans that can be used anywhere in the world. Since Medicare eligibility typically starts at age 65, The Military Coalition called this proposal "FEHBP–65". However, the proposal is to offer this option to any Medicare-eligible uniformed services beneficiary, regardless of age. This will accommodate under 65 beneficiaries who are Medicare-eligible because of disability.

The added cost of the Coalition's triple option proposal is approximately $2.4 billion per year, of which $1.4 billion is for subvention and $1.0 billion is for FEHBP–65. DOD is already committed to pursuing Tricare and has signified its willingness to maintain its current level of support for beneficiaries 65 and older—$1.4 billion—if Medicare subvention is enacted. Since Medicare will only be responsible for costs in excess of that threshold, subvention would actually save the government money in the long run (because DOD can provide care in military facilities at a lower cost than Medicare would otherwise have to pay to procure private sector care for DOD beneficiaries). The additive cost of approximately $1 billion will have to be offset by DOD.

Several bills have been introduced in Congress in order to work toward this end. H.R. 580 (Rep. Hefley, R–CO) would authorize full-scale Medicare subvention. H.R. 3142 (Rep. Hefly, R–CO), H.R. 3151 (Rep. Watts, R–OK), S. 1487 (Sen. Gramm, R–TX), and S. 1639 (Sen. Dole, R–KS) would authorize subvention demonstration projects at one or two selected sites. H.R. 3012 (Rep. Moran, D–VA) and S. 1651 (Sen. Warner, R–VA) would authorize Medicare-eligible uniformed services beneficiaries to enroll in the Federal Employees Health Benefits Program.

The Military Coalition recognizes that achieving these objectives poses a considerable financial challenge for DOD and this Subcommittee. However, we believe it is a moral imperative for the government to find a way to provide at least the same level of health coverage to Medicare-eligible service retirees that it already provides to every other federal retiree, including every retired Member of Congress and every retired Congressional staffer.

One challenge is to get better data concerning likely participation rates and costs of each program. The Coalition believes strongly that the way to accomplish this is through demonstration projects at selected sites, which can measure program effects under realistic conditions while holding costs to a minimum.

The Military Coalition urges the Subcommittee to provide funds to conduct demonstration tests of Medicare subvention and FEHBP–65 at two sites each. One site should test just subvention, one site just FEHBP, and a third site should test both programs in combination. This methodology should ensure an objective measure of both the individual and combined effects of the two initiatives.

The Military Coalition appreciates this opportunity to provide testimony, and would be pleased to work with the Subcommittee and its staff in providing any additional information that may be required on the subjects presented.

PREPARED STATEMENT OF MAJ. GEN. ROGER W. SANDLER, AUS (RET.), EXECUTIVE DIRECTOR, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and Members of the Committee: On behalf of the many members of the Reserve Officers Association from each of the uniformed services, I thank you for the opportunity to present the association's views and concerns relating to the Reserve components and the Defense Appropriations Bill for fiscal year 1997.

First, I would like to thank you for your past support of the Reserve components. By consistently promoting Reserve component programs, you have contributed directly to morale and to the high state of Reserve component readiness. Without your past support, the Reserve components could never have responded as they did in Operations Desert Shield/Desert Storm and subsequent contingencies, including Operation Joint Endeavor.

The restructuring and drawdown of all of our Armed forces, our Total Force, continues apace even as we ask ourselves if we are going too fast or too far in the downsizing process. Our major concern as an association is that in our enthusiasm to achieve economies and savings we avoid the excesses that have characterized earlier reductions, excesses that have taken bone and muscle, leaving us ill-prepared to meet military challenges that have materialized all too soon, perhaps, at least in part, as a result of perceptions of our diminished readiness. Our recent experience in Somalia has reminded us once again that there are real limits to what even a superpower can accomplish in any given circumstance. What our Russian friends refer to as the correlation of forces, the ability to apply the appropriate force to a specific situation and so to control the military outcome, requires great flexibility. There is a real danger that we may lose that flexibility on our way to the bank. It has happened before.

Bottom-Up Review

The Bottom-Up Review, on which the fiscal year 1997 Defense Budget Request is based, was an effort to analyze defense requirements in light of the changing threats to our national security. Present realities and growing tensions (particularly in China and Korea) argue that a thorough reassessment is now very much in order. In addition, we are compelled to point out that many of the Reserve component force reductions growing out of the Bottom-Up Review appear to be little more than across-the-board cuts, are unsupported by analysis and are neither innovative nor cost-effective. Worse still, they appear to sap the very flexibility that must be the hallmark of our military forces in the post-Cold War world.

While the Bottom-Up Review was a significant contribution to the restructuring of America's military following the Cold War, it should not be considered as being etched in stone. Indeed, many in the Congress and others conversant with the realities of defense planning and strategy question whether the BUR's end-state military force can, in fact, meet the challenge of dealing successfully with two, nearly simultaneous major regional contingencies. Assumptions must be scrutinized, and new information or data should be considered. The Bottom-Up Review, or any defense planning, must evolve.

Greater reliance on reserve components

The 50 years of reliance on a large, Cold-War standing military have ended. Confronted with sizeable defense budget reductions, changes in the threat, and new missions, America's military answer for the future must be a return to the traditional reliance on its Minutemen—the members of the Reserve components. Can America's Reservists fulfill their commitment to the Total Force—can they meet the challenge?

Five years ago, Operations Desert Shield and Desert Storm proved that the Reserve components were ready and able. During the Gulf War, more than 245,000 Reservists were called to active duty. Of the total mobilized, 32 percent were from the National Guard and 67 percent from "the Reserve." More than 106,000 Reservists were deployed to Southwest Asia. About 20 percent of the forces in the theater were members of the Reserve components.

Today in Operation Joint Endeavor, nearly 4,000 Reservists, serving with their units, and 350 individual Reservists serving as volunteers, again demonstrate their readiness and their capability to respond to their nation's call.

Contribution of Reserve forces

Reserve forces contribute to and are integral parts of all three elements of national strength—a strong economy, a credible military, and a strong national will. First, Reservists contribute to the productive segment of the nation's economy as workers and tax-paying citizens. Second, a strong, viable Reserve force is an inseparable part of America's military, a cost-effective augmentation to the Active force and the marrow of the mobilization base. Finally, mobilizing Reserve forces is the litmus test and the enabler of public support and national will. The early and extensive involvement of the Guard and Reserve in the Gulf War was instrumental in achieving the strong public support of the military and our national objectives.

Reserve component cost-effectiveness

ROA maintains that a proper mix of Active and Reserve forces can provide the nation with the most cost-effective defense for a given expenditure of federal funds. Reservists provide 35 percent of the Total Force, but cost only 7 percent of the DOD budget. They require only 23 percent of active-duty personnel costs, even when factoring in the cost of needed full-time support personnel. Over a 4-year period, 100,000 Reservists cost $3 billion less than 100,000 Active duty personnel. If the significant savings in Reserve unit operations and maintenance costs are included, billions more can be saved in the same period. ROA is not suggesting that DOD should transfer all missions to the Reserve, but the savings Reservists can provide must be considered in force-mix decisions. It is incumbent upon DOD to ensure that each service recognizes these savings by seriously investigating every mission area and transferring as much structure as possible to the Reserve components.

Full-time support

The Bottom-Up Review posits an increased reliance upon the Reserve components as one the bases of its recommended force structure. Indeed, drawing upon the lessons learned from Operations Desert Shield and Desert Storm, and others, including the ongoing Operation Joint Endeavor, the implications for the Total Force are clear and inescapable: Reserve forces, trained and equipped to a high state of readiness are essential for any successful significant military operation by our Armed forces.

One major key to Reserve component readiness is the level of full-time support available to commanders to handle the day-to-day administrative, logistical, and training support duties associated with unit operations. Full-time support personnel, whether active duty Reservists, military technicians (civilian employees who, by law, are required to be drilling Reservists), Active component soldiers attached to Reserve units, or civilian employees allow drilling Reservists to spend their available duty time training to perform their mobilization mission.

Increased reliance means increased requirements for readiness. Increased readiness in the Reserve components demands adequate levels of full-time support. The percentage of full-time support available in Reserve units has been shrinking under the pressure of budget reductions.

ROA urges the Congress to fund full-time support levels of at least 12 percent as recommended by the Assistant Secretary of Defense for Reserve Affairs in order to provide the readiness required by today's increased reliance upon the Reserve components.

ARMY RESERVE

Today, America's Army has become so intertwined and so dependent on its Guard and Reserve forces that it can no longer go to war without them. By the end of fiscal year 1998 the on-going post-Cold War downsizing will reduce the Total Army by almost 500,000 soldiers (approximately 285,000 Active, 90,000 Guard, and 111,000 Reserve). This reduction in strength and the Army's change from its forward deployed posture to a smaller CONUS-based power projection force requires a much greater dependence by the Active on its Reserve component force.

The Army Reserve is predominately combat support/combat service support; provides combat support/combat service support command and control at echelons above division and corps; contains mainly rapidly deployable units; provides a platform for contingency deployments; is a principal trainer of Army personnel of all components; is a major player in the reconstitution base; and is the principal provider of both units and individuals for contingency operations.

The Army Reserve is now 20 percent of the Total Army. It is structured to perform 45 percent of the Army's combat service support and 30 percent of the Army's combat support wartime missions. Nearly 400 Army Reserve units are part of the Force Support Package (FSP)—Active and Reserve component units that support America's Army Crisis Response Force and Early Reinforcing Force. Unlike the Army Reserve of the past, these units are required immediately at the start of any contingency operation and must be ready to perform their mission and, if necessary, deploy on very short notice.

Readiness

The readiness of the entire Army Reserve has improved dramatically over the past decade. Much of this improvement can be credited to the effective management, distribution, and redistribution of resources by the congressionally mandated United States Army Reserve Command and the continuing oversight and assistance of the Congress.

Readiness would be considerably lower had it not been for past congressional assistance in appropriating and authorizing levels of resourcing above the DOD request. Even with congressional interest and support, the Army Reserve, when compared to the other Reserve components, continues to have the lowest level of equipment-on-hand (EOH), the lowest percentage of full-time support (FTS), and, unfortunately, even with its superb success in managing its force, the lowest level of readiness of all the Reserve components due to its historically low level of resourcing.

ROA urges the Congress to continue to resource the Army Reserve at higher levels to bring it to parity with the other Reserve components.

Equipment

One of the Army Reserve's real success stories in improving readiness has been in the way it equips its units. Four factors play a role in this: targeted procurement, redistribution of equipment, the National Guard and Reserve Equipment Appropriation (NG&REA), and an increase in depot-maintenance funding. These programs have been instrumental in raising the level of the Army Reserve's equipment on-hand (EOH), providing more timely fielding of modern equipment and critical items to high priority units.

The modernization of Army Reserve equipment is accomplished through three basic programs: redistribution, Army procurement, and the NG&REA. Redistribution is the least effective of the modernization programs for the Army Reserve. As noted earlier, the expected, large "cascade" of equipment from the Active component downsizing, never materialized. However, it remains one of the Army's primary, get-well plans for the Army Reserve. The Army inactivated many Active combat units, not CS or CSS units—units with the equipment needed by the Army Reserve. Abrams tanks and armored personnel carriers do not substitute very well for TMDE required by Reserve maintenance units.

Even though procurement does provide some relief to Army Reserve equipment shortages, the greatest relief to Army Reserve equipment shortages is the NG&REA. Due to the interest of Congress and the success this program has had in increasing the level of EOH in the Army Reserve, the readiness of the Army Reserve has increased significantly over the past decade. We urge the Congress to continue the NG&REA and to fund the following high priority Army Reserve equipment requirement.

ARMY RESERVE (NG&REA) EQUIPMENT REQUEST—MAJOR EQUIPMENT SHORTFALLS IN USAR

Nomenclature	Quantity	Unit price	Total cost
HEMTT bridge trans	74	$105,000	$7,770,000
M916A1 (M917A1)	65	181,000	11,765,000
2.5T cargo ESP	300	52,000	15,600,000
ROWPU 3K GPH	15	285,000	4,275,000
Floodlight set TRL MTD	300	4,500	1,350,000

ARMY RESERVE (NG&REA) EQUIPMENT REQUEST—MAJOR EQUIPMENT SHORTFALLS IN USAR—Continued

Nomenclature	Quantity	Unit price	Total cost
Trailer HMT	300	7,500	2,250,000
5KW GEN TQG	300	17,500	5,250,000
Tractor, yard	26	67,000	1,742,000
Subtotal			50,002,000
HMMWW contact MNT TRK	121	87,000	10,527,000
All terrain forklift 10K	45	100,000	4,500,000
Hydraulic excavator	20	260,000	5,200,000
All terrain crane 20T	25	250,000	6,250,000
Roller vibratory type 1	25	130,000	3,250,000
HEMTT wrecker	25	265,500	6,637,500
MG grenade M40 MK19	200	16,000	3,200,000
Steam cleaner	150	20,000	3,000,000
Small arms simulators	5	200,000	1,000,000
Laser leveling system	30	17,000	510,000
High mobility trailer	350	7,500	2,625,000
SPBS–R/ULLS ground	1,118	2,950	3,298,100
Subtotal			49,997,600
SINCGARS	300	16,667	5,000,000
INTEG FAM test equipment	5	1,000,000	5,000,000
Misc medical equipment	55	10,000	550,000
Pallatized load system	33	240,000	7,933,200
PLS trailer	77	43,000	3,311,000
HEMTT cargo chassis	54	152,000	8,208,000
Subtotal			30,002,200
Total			130,001,800

FISCAL YEAR 1997 ARMY BUDGET REQUEST

The Army and its Reserve components continue to receive reduced levels of funding that we believe to be inadequate to maintain the Army as the best army in the world. In this year's Department of Defense budget submission, proposed lean years continue to plague the Army and its Reserve components. The President's fiscal year 1997 Defense budget request for the Army is $60.1 billion. We believe that this austere figure under funds the Army by at least $4 billion and possibly as much as $7 billion. In the administration's effort to reduce the budget, today's readiness and OPTEMPO requirements are being funded at the expense of procurement and future force modernization.

The Army Reserve's share of the fiscal year 1997 Army budget request is $3.1 billion or 5 percent of the entire $60.1 billion request. Separated into the Reserve Personnel, Army (RPA), and the Operation and Maintenance, Army Reserve (OMAR), accounts, the request is for $2 billion RPA and $1.1 billion OMAR. Both accounts could use considerable plus-ups to fully fund known requirements. Critical funding shortfalls in these two areas alone exceed $400 million.

Reserve personnel, Army

Fiscal year 1997 continues to be a restructuring year for the Army Reserve as it is forced, by the requirements of our national defense strategy, as defined by the Bottom-Up Review, to downsize from 230,000 Selected Reserve (SELRES) personnel in 1996 to a programmed fiscal year 1997 end strength of 215,000. Even with the downsizing we believe the president's RPA budget request for $2 billion is again insufficient to provide adequate funds to man, train, educate, and support essential Army Reserve personnel.

Full-time support

The lack of adequate RPA funds once again keeps the Army Reserve full-time support (FTS) level at 9 percent, the lowest level of FTS manning within the Reserve components. FTS is a key factor to Army Reserve unit readiness. This full-time force of MILTECH's, AGR, DA civilians, and Active component soldiers administers, manages, plans, recruits, and maintains equipment for Army Reserve units, allowing the drilling Reservist to take full advantage of limited training time. This full-time force also performs a vital training mission—training many drilling Reservists on the newest equipment and the latest Army doctrine. Today's Army is fully integrated and its soldiers must be ready to perform their missions. Adequate levels of FTS offer the most flexibility in improving and maintaining unit readiness.

Today, there are over 36,000 Army Reserve FTS recognized requirements. But, the Army Reserve has the authorization to fill only 57 percent, or 20,629, of these. The Army Reserve is being forced to manage its force with minimum essential full-time support requirements, negatively affecting both readiness and training.

We urge Congress to stop any further reductions to Army Reserve FTS. Instead the Army Reserve FTS level should be increased to 12 percent to bring it nearer to parity with the other Reserve components that have historically have had much higher levels of readiness.

We urge the Congress to increase the number of Army Reserve Active/Guard Reserve (AGR) personnel in the fiscal year 1997 authorization and appropriation bills by approximately 500 ($34 million). This wedge will help to reverse this adverse trend to Army Reserve FTS and readiness. These additional full-time soldiers, who deploy with their units, are the key to well planned and executed training that translates into ready units required for the warfight.

Training/professional development education

The shortage of RPA funding forces the Army Reserve to limit, or not offer, professional development education required for promotion for some TPU, and many IMA and IRR personnel; to limit training time available to teach critical individual skills; and to dramatically reduce IRR mobilization training.

We estimate that the DOD budget request for Army Reserve RPA is under-funded by at least $120 million. We urge the congress to add $120 million to fully fund the RPA account.

Operation and maintenance, Army Reserve

The fiscal year 1997 DOD budget request for the Army Reserve's operations and maintenance (OMAR) account is $1.1 billion, a drop of $35 million from the fiscal year 1996 appropriation that was itself under-funded by at least $300 million. We estimate that there is at least a $300 million OMAR shortfall in the fiscal year 1997 request again this year, which will force the Army Reserve to compensate by further reducing equipment and facility maintenance, OPTEMPO and supply purchases. Backlogs for maintenance and repair continue to grow at the alarming rate of 20 percent per year, and necessary support to essential training continues to deteriorate, decreasing readiness.

ROA urges the Congress to add $300 million to fund Army Reserve OMAR programs.

AIR FORCE RESERVE

Total force contribution

	Percentage
Air Mobility Command (AMC):	
Total medical capability	71
Aerial port capability	48
C–141 and C–5 airlift, associate (aircrew only)	46
KC–10 aircrews, associate	43
KC–10 maintenance force, associate	25
Airlift maintenance force, associate	40
C–5/C–141 airlift, unit equipped	19
KC–135 refueling force	10
Air Combat Command (ACC):	
WC–130 weather reconnaissance force	100
Aerial spraying capability	100
HC–130 and HH–60 air rescue force	41
Mobile aerial firefighting capability	25
C–130 airlift force	25
Fighter force	11

Total force contribution—Continued

	Percentage
B–52 bomber force	12
Air Force Materiel Command (AFMC): Wartime combat logistics capability	59
Air Force Special Operations Command (AFSOC): MC–130 combat Talon I force	57
Other commands: Civil engineering capability	18

As seen in the chart above the Air Force Reserve is involved in virtually every aspect of the Air Force mission. Last year set another record for operations tempo as Total Force contributions continued to ensure that up to 1,000 Reservists per day may be working beyond the borders of the United States, with many times that number on duty within the CONUS.

Equipment modernization, compatibility and interoperability with the Active component are essential to the viability of the Reserve component. The National Guard and Reserve Equipment Account (NGREA) was initially established in 1981 to enhance the readiness posture of the Reserve component. Since that time public law and Congressional language have repeatedly provided clear guidance and reinforced the direction that the equipment fund is intended to enhance the readiness and combat capability of the Reserve component. The Air Force Reserve has been faithful to that direction, judiciously spending money based on mission performance, sustainment, survivability, interoperability and readiness.

The primary goal is, and has always been, compatibility with the Active component. Numerous current operations issues are driving the Air Force to change its doctrine and warfighting approach. Examples include night operations, precision munitions, and self-protection capabilities. Budget issues are forcing the Air Force toward higher fidelity simulators and training devices to save flying hour funds. Thanks to the support of several congresses, the Air Force Reserve is leading the way in some of these technological advances. AFRES aircraft will have night vision compatible lighting modifications and improved electronic warfare capabilities, and Air Force Reserve initiatives in unit level training devices have brought high fidelity, simulator-certified training devices into AFR F–16 units. This success story is being repeated for A–10's and C–130's.

But in other areas like precision guided munitions, AFR is behind and struggling. To be viable in today's contingency plans, accurate weapons delivery is paramount and is the top priority in miscellaneous equipment.

Following is a prioritized list of unfunded aircraft and miscellaneous equipment requirements.

ROA recommendations for fiscal year 1997 NG&RE

	In millions
Aircraft:	
7 New production WC–130J's. Will complete replacement of DOD's sole, aging weather reconnaissance aircraft at Keesler AFB, MS	$336.0
Spares and support equipment for the WC–130J	49.0
Miscellaneous equipment:	
36 F–16 UDTU's—Upgraded data transfer unit (avionics upgrade)—provides memory and processing thruput for integrated electronic warfare, ground collision avoidance systems, database terrain following, and precision munitions	2.3
36 F–16 SADL/EPLRS units—provides group A wiring and data link radios for integration into Army's Digital Battlefield. Best solution for reducing risk of fratricide	3.5
36 F–16 EWMS units—integrates RWR, MWR, ECM pods and chaff/flare dispenser systems into one control panel; increases survivability and reduces pilot workload	3.7
63 A–10 SADL/EPLRS units—provides group A wiring and data link radios for integration into Army's Digital Battlefield. Best solution for reducing risk of fratricide	5.4
16 C–130 cockpit upgrades/standardization units—modifies C–130H aircraft to NVIS configuration; includes int/ext compatible lighting, digital instruments, and radar replacement	11.7
37 A–10 EWMS units—integrates RWR, MWE, ECM pods and chaff/flare dispenser systems into one control panel; increases survivability and reduces pilot workload; based on current F–16 technology	3.5

ROA recommendations for fiscal year 1997 NG&RE—Continued

	In millions
200 Night vision devices for F–16, A–10, C–130, HH–60, and KC–135 aircraft	1.5
3 A–10 Unit level training devices—high fidelity simulator for in-unit training	5.4
32 A–10 Avionics upgrades—upgrade LASTE computer hardware; add improved multifunction displays; upgrade HUD to receive/display symbology for SADL/EPLRS; and integrate EWMS to missile warning receiver, etc	5.4
4 C–130H training devices—high fidelity, simulator quality training devices	30.0
16 C–130 Integrated EW system units—integrates RWR, MWR, ECM pods and chaff/flare dispenser systems into one control panel; increases survivability and reduces pilot workload; based on current F–16 technology	12.8
32 C–130 Avionics upgrade units—provides Situational Awareness Data Link (SADL), data transfer capability, digital terrain system, moving map, integrated mission planning, etc	5.4
2 HC–130 Tanker conversion kits—modifies 2 non-mission capable BAI aircraft to mission capable BAI; includes plumbing wings, hose pods, Benson tanks, peculiar avionics and ADS	7.0
2 C–130 Modular Airborne Firefighting System (MAFFS) kits—replaces current firefighting system that will become obsolete in fiscal year 1998; new system will be self contained, multiple drop capable, and significantly safer	2.4
144 F–16 Weapons pylon upgrades—adds 1760 data bus interface capability to accept smart weapons (JDAM, WCMD, etc.)	1.4
5 KC–135R engine kits—replaces four engines, associated flight controls, and ground handling equipment to meet reliability, overseas basing and environmental requirements	130.0
32 KC–135 Radar replacement kits—modification to replace the APN–59E radar to comply with joint AMC/ACC operational requirements	6.0
9 B–52 Avionics upgrade units—provides SADL, chaff/flare switch, ALR–69 repeater scopes, etc	1.1
13 HH–60 Integrated comm/nav system units—provides GPS/Doppler/TACAN integration, etc	5.9
13 HH–60 Forward Looking Infra-Red (FLIR) upgrade units—provides APQ–16 integrated comm/nav solution for FLIR capability	7.7
32 A–10 Digital terrain system units	3.5
60 Non-aircrew training systems—computer-based training systems to support level 3, 5, and 7 certification in all non-rated specialties (e.g., logistics, medical, acquisition, etc.)	0.6
Total	$256.2

NAVAL RESERVE

The fiscal year 1997 budget request again projects a decline in the personnel strength of the Naval Reserve. Although the requested reduction is a marked improvement over the sharp cuts that were typical of the requests of the early 1990's, for the second consecutive time since the end of the 1970's the budget request projects a Naval Reserve of less than 100,000 personnel.

If the proposed end strength (95,941 Navy Selected Reservists including 16,506 full-time support (FTS) personnel) is approved by Congress, there will be less than 80,000 drilling Reservists in the Naval Reserve by the end of fiscal year 1997—another new post-World War II low.

The Navy has also made force mix changes that have placed increased reliance on the Naval Reserve that were not covered by the OSD study. The transfer of LST's to the Naval Reserve and the new role as an operational reserve carrier for U.S.S. *Kennedy*, both accomplished in fiscal year 1995, are two significant examples. The Selected Reserve personnel (including FTS personnel) required for these increases in Naval Reserve force structure were also absorbed from within the 96–100,000 Selected Reserve requirements validated by the BUR process and revalidated by the OSD study.

The additional missions already assigned to the Naval Reserve provide a valid indicator that the Naval Reserve should not drop below 100,000 personnel. The adoption of any of the options from the OSD study should have already raised the Navy

Selected Reserve requirement above the 96–100,000 level. Adoption of additional options or other new initiatives should raise this requirement even higher.

It is also interesting to note that the data within the Secretary of Defense's press release of 13 February 1996 covering fiscal year 1996 Reserve component unit inactivations again validated that today's requirements for Navy Selected Reservists are substantially higher than requested by the administration. For example, although the Congress added Naval Reserve personnel above the level requested to an 98,900 end strength for fiscal year 1996, the validated force structure requirement is 112,400. The target requirement projected for fiscal year 1999 is 108,000. Continuation of even a slight decline in Naval Reserve personnel strength will further enlarge today's 13,500 Naval Reserve personnel shortfall.

ROA recommends that the Naval Reserve be authorized and funded for an end strength of at least 100,000 Selected Reserve Personnel (including approximately 17,500 full time support personnel) for fiscal year 1997.

Funding shortfalls

In addition to funds required to support a Naval Reserve of 100,000 personnel and to retain the current force level, there are indications that the Naval Reserve needs approximately $60 million more than has been requested in the Reserve Personnel, Navy (RPN) and Operation & Maintenance, Naval Reserve (O&M,NR) appropriations for fiscal year 1997.

The largest single need for additional O&M,NR funding is real property maintenance. At least $30 million of additional funding is needed to keep the critical backlog of real property maintenance from increasing above the current level even while facilities are being closed and consolidated through the BRAC process. This appropriation also needs approximately $15 million in additional funding for aircraft depot maintenance, base operating support, and recruiting. The underfunded situation in recruiting and base operating support are also the direct result of the BRAC process.

The Naval Reserve could also effectively use $15 million more in the RPN appropriation to fully fund Special Duty Assignment Pay for recruiters and to support additional periods of contributory support to the Navy.

Equipment modernization

ROA continues to advocate assignment of modern fleet-compatible equipment to the Naval Reserve. Much of the progress made in improving the readiness and capability of Naval Reserve units has been the direct result of congressional action to designate new equipment for the Naval Reserve in the National Guard and Reserve Equipment (NG&RE) appropriation or earmarked for the Naval Reserve in the traditional procurement appropriations. As is noted in the Department of Defense fiscal year 1997 National Guard and Reserve Equipment Report, "the RC [Reserve Components] are not equipped to meet the national defense strategy * * *."

ROA has identified unfunded Naval Reserve equipment requirements for consideration by Congress for addition to the administration's request for fiscal year 1997 in either the NG&RE appropriation or as earmarked additions to the Navy's traditional procurement appropriations. Although ROA's recommendations for fiscal year 1997, outlined in the list below, exceed $1.2 billion, the total requirement for both modernization and providing equipment where none is available today is several times this amount.

ROA recommendations for fiscal year 1997 NG&RE—Naval Reserve

[In millions of dollars]

SH–60B (5 aircraft)	131.00
C–9 replacement aircraft (4 aircraft)	160.00
E–2C (plus) (4 aircraft)	300.00
F/A–18 upgrade program	96.00
MIUW van system upgrades	102.00
P–3C update III kits (9)	56.00
F–14 upgrade program	95.00
P–3C ISAR	18.00
ALQ–126B	25.00
P3–C avionics improvement program	40.00
HH–60H refueling upgrade	16.00
C–9 engine upgrade	45.00
Miscellaneous equipment	141.15
Total Naval Reserve equipment for consideration in fiscal year 1997 NG&RE	1,225.15

ROA recommends that Congress provide as much of the equipment as is feasible from the foregoing list of unfunded requirements.

MARINE CORPS RESERVE

The Administration's budget proposes an end strength of 42,000 Selected Marine Corps Reserve (SMCR) personnel for fiscal year 1997. This request is consistent with the views of Congress to maintain a Marine Total Force of 174,000 Active Force and 42,000 Reserve personnel. It is also consistent with the Bottom-Up Review decision to maintain this force mix until the end of fiscal year 1999.

New AR Program

The Marine Corps recently implemented a new Active Reserve (AR) program that employs Reservists on full-time active duty to train and support the Marine Corps Reserve. The adoption of this new career program for Reservist has addressed issues raised by the critics of the former full-time support (FTS) program while, at the same time, creating a much needed cadre of professionals to ensure that the technical training and administrative requirements of the Selected Marine Corps Reserve are met in an efficient and effective manner.

Today's AR structure consists of 2,559 validated military personnel spaces, 274 more than the FTS personnel that were authorized for fiscal year 1995 or included in the budget request for fiscal year 1996. Indications are that an additional 816 personnel (3,375 total) will be needed to adequately support a Marine Corps Selected Reserve of 42,000.

The Marine Corps is attempting to phase in the needed additions to the AR program. ROA strongly endorses this program and recommended that Congress increase the FTS personnel end strength for fiscal year 1996 by 274 to meet at least all the documented shortages associated with the current AR personnel authorizations. Congress agreed with this recommendation and authorized and funded a Marine Corps Selected Reserve end strength of 42,274 (including 2,559 Active Reserve personnel) for fiscal year 1996.

This year, the administration's request is to maintain the Marine Corps Reserve at 42,000 personnel, including 2,559 AR personnel for fiscal year 1997. In light of the fact that facility closures, consolidations, and associated unit relocations have made it very difficult for the Marine Corps Reserve to achieve its authorized personnel strengths, ROA supports the administration's request as a reasonable method of assuring needed growth of quality personnel in both the Selected Reserve and Active Reserve portions of the force.

ROA recommends that the Marine Corps Reserve be authorized and funded for an end strength of 42,000 Selected Reservists, including 2,559 FTS personnel for fiscal year 1997.

Funding shortfalls

The request to support the Marine Corps Reserve appears to be underfunded by approximately $40 million in the Operation & Maintenance, Marine Corps Reserve (O&M,MCR) and Reserve Personnel, Marine Corps Reserve (RP,MCR) appropriations.

As in the case of the Naval Reserve, some of the additional funding requirements have their origin in the BRAC process, but are not chargeable to BRAC funds. For example, almost $7 million in additional O&M funds is needed for environmental compliance and unit relocations. Nearly $19 million in additional O&M funds are needed for individual equipment issue and to provide required training, maintenance, and depot level repairables for the M1A1 tanks that are being transferred from the Army to the Marine Corps Reserve.

The Marine Corps Reserve personnel appropriation is also underfunded by almost $15 million. The major deficiency in this appropriation is in the area of Active Duty for Special Work (ADSW) where an additional $8 million is needed to fund the expanding area of exercise and operational support for the Active force Marine Corps. Additional funding is also needed for the Individual Ready Reserve (IRR) and for schools and travel for members of the Selected Marine Corps Reserve (SMCR).

Equipment modernization

Modern equipment is critical to the readiness and capability of the Marine Corps Reserve. Although the Marine Corps attempts to implement fully the single acquisition objective (AO) philosophy throughout the Marine Corps Total Force (Active and Reserve), there are significant unfilled Reserve equipment requirements that have not been met because of funding shortfalls. For example, this year's National Guard and Reserve Equipment Report to Congress documented a requirement for additional CH–53E helicopters and a need for F/A–18D aircraft to provide required electronic warfare and tactical reconnaissance capability that has been degraded with the loss of other obsolete or obsolescent aircraft.

Congress has initiated action to provide the Marine Corps, including Marine Force Reserve, the required M1A1 tanks. ROA strongly supports this modernization program for both the Army and the Marine Corps Reserve. However, funds are needed to upgrade the M1A1 tanks transferred to the Marine Corps Reserve to ensure that they are configured to Marine Corps standards. In addition, the Marine Corps Reserve also requires additional funds for product improvement programs (PIP) to bring its amphibious assault vehicles up to Marine Corps standards. The specific unfunded requirements outlined above are the most expensive items included in the table below. This table outlines approximately $500 million in equipment requirements for the Marine Corps Reserve that are candidates for funding in the National Guard and Reserve Equipment appropriation in fiscal year 1997. As in the case of the Naval Reserve, the total unfunded equipment requirement for the Marine Corps Reserve is considerably greater than the summary list provided. Details of these recommendations have also been provided to cognizant staff members.

ROA recommendations for fiscal year 1997 NG&RE—Marine Corps Reserve

[In millions of dollars]

CH–53E (6 aircraft)	192.000
F/A–18D (4 aircraft)	164.000
AAV7A1 (PIP)	2.192
LAV (PIP)	2.600
Modification kits (M1A1 tank)	5.000
Night vision equipment	.864
Phoenix in-bore subcal device	.320
Common end user computers	3.730
Miscellaneous equipment	128.498
Total Marine Corps Reserve equipment for consideration in fiscal year 1997 NG&RE	499.204

ROA recommends that Congress provide as much dedicated equipment as is feasible for the Marine Corps Reserve from the list above.

COAST GUARD RESERVE

Selected reserve strength

ROA supports the fiscal year 1997 budget request to maintain the Coast Guard Selected Reserve end strength at the 8,000 level that was approved by Congress for fiscal year 1996.

We worked diligently to inform the Congress, the administration, and Coast Guard leadership of the unique capabilities of the Coast Guard Reserve as a value-added resource for peacetime day-to-day operations as well as a highly cost-effective source of needed trained personnel to meet military and other contingency requirements. We worked with our citizen-Reservists to develop and distribute a white paper on this issue 2 years ago that appears to have had the desired effect—a better understanding of the efficiency and effectiveness of the Coast Guard Reserve and support for at least 8,000 Selected Reserve personnel.

Port security unit requirements

As part of the continuing review of mission requirements, the Coast Guard will establish three additional port security units (PSU's) to meet recently validated warfighting CINC requirements. This action has been coordinated with the Chairman of the Joint Chiefs of Staff and the Chief of Naval Operations. The three existing units performed critical mission-essential functions during Operation Desert Storm and during Operations Support and Uphold Democracy in Haiti.

The major lessons learned from these operations are: The port security unit mission is logical for the Coast Guard Reserve, Three additional PSU's are needed to meet the two major regional contingency (MRC) requirements, and Equipment is needed to replace what has been consumed by the high tempo of operations by the three existing units and to outfit the three additional PSU's.

ROA Recommendations for fiscal year 1997 NG&RE—Coast Guard Reserve

[In millions of dollars]

PSU equipment	2.0
PSU training equipment	1.7
Equipment for 3 new PSU's	8.7

ROA Recommendations for fiscal year 1997 NG&RE—Coast Guard Reserve—Continued

Training equipment for new PSU's	1.9
Total Coast Guard Reserve equipment for consideration in fiscal year 1997 NG&RE	14.3

ROA recommends that the fiscal year 1997 National Guard and Reserve Equipment (NG&RE) appropriation include funds for port security unit equipment for the Coast Guard Reserve.

Fiscal year 1997 proposal

ROA is fully aware that this committee is not directly responsible for funding the Coast Guard Reserve. However, full funding of this Reserve Component is necessary to ensure that the Coast Guard Reserve is capable of providing needed personnel and capabilities to DOD for contingency operations. This committee's support of the Coast Guard has been critical to maintaining its military capability. Your continued support is vital.

The administration has requested $65.9 million for the Reserve Training (RT) appropriation for fiscal year 1997. ROA supports this request as the minimum needed to fund a full training program for 8,000 personnel. It should be apparent that the level appropriated for Reserve Training (RT) for fiscal year 1996 ($63 million) will not be sufficient to maintain an Selected Reserve force of 8,000 personnel during fiscal year 1997.

Additional funds are needed for the modest pay raise projected for fiscal year 1997 and to cover the impact of inflation on the balance of the RT appropriation. Additional funds are also needed to fund 8,000 personnel throughout fiscal year 1997 since there is a realistic expectation that the Coast Guard Reserve will reach its authorized strength level of 8,000 by the end of this September.

ROA recommends that the Coast Guard Reserve be authorized and funded for an end strength of 8,000 Selected Reserve personnel for fiscal year 1997.

CONCLUSION

Thank you for the opportunity to represent the Reserve Officers Association's views on these important subjects. Your support for the men and women in uniform, both active and Reserve, is sincerely appreciated. I'll be happy to answer any questions that you might have.

Prepared Statement of the University of Puerto Rico

Mr. Chairman, and distinguished members of the subcommittee, the University of Puerto Rico appreciates the opportunity to submit testimony, for the record, concerning the Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR) and the University's Hispanic Collaborative for Research and Education in Science Technology (HiCREST) program.

The University of Puerto Rico, founded in 1903 as a land grant institution, is the state university of Puerto Rico and the largest Hispanic Institution of higher education in the United States. It is also one of the largest multi-campus systems in the country. The UPR has over 62,000 students (66 percent of whom are women), 5,000 faculty members, four major campuses and six regional colleges and other units throughout the island. There are over 360 academic programs, all fully accredited by national organizations, offered at the University. In addition to the school of Agricultural Sciences, The UPR operates schools of Law, Science, Mathematics, Engineering, Medicine, Architecture, Humanities, Education and Social Sciences. As the premiere Hispanic institution in the United States, the University of Puerto Rico has graduated more than 250,000 students, many of whom have made significant contributions to American society.

As the Nation's leading Hispanic academic center for research and education related to science and technology, the University has an exemplary record in educating students who pursue careers in the science, engineering and mathematics (SEM) fields. The UPR ranks number one among all institutions in terms of the number of Hispanic students that go on to obtain Ph.D's in science and engineering. One in ten students attending the University's largest campus at Rio Piedras who receive a Bachelor's degree in science go on to obtain Ph.D's. This number is twice the national average for all students. Twenty percent of all Hispanics who obtain their Ph.D. in Science and Engineering got their undergraduate degrees from The UPR.

In addition, The UPR has benefited greatly, over the last ten years, from its involvement in the Department of Defense's Experimental Program to Stimulate Competitive Research (DEPSCoR); the National Science Foundation's EPSCoR program; the Minority Research Center of Excellence; and the Alliance for Minority Participation (AMP). These programs have allowed the University to develop its scientific and technical base in selected areas to a national competitive level. The DEPSCoR program, in particular, is extremely important to Puerto Rico, as well as to the 18 other participating states. DEPSCoR plays a critical role in terms of enhancing and building the capacity of institutions and research in states that traditionally have not fared well in competing for regular DOD research and training grants.

For the record, The UPR did very well in the recent DEPSCoR competition, winning a total of five awards. Clearly, there is a strong research base on which to build stronger partnerships and alliances which would enable the University to deploy expertise and talent in the service of the national security interests.

With the Hispanic population being the fastest growing population in the country, persons from our community undoubtedly will be called upon to help provide the technical skills, expertise, and leadership needed for the next century. As we attempt to address the challenges we currently face, as well as those that lie ahead, Hispanic Serving Institutions (HSI's) understand the critical role they must play in the education of Hispanic students in science and technological areas. In this vein, The UPR, working with HSI's in New Mexico, have sought to share and build upon their strengths through enhanced collaborations with Federal agencies, and other institutions of higher education.

Last year, in an effort to further enhance the participation of the nation's Hispanic Serving Institutions (HSI's) within DOD's university research mission, The UPR developed the HiCREST initiative. Too often, HSI's have played secondary and often peripheral roles in Federally-supported collaborative efforts related to science and technology. The HiCREST collaboration is designed to help HSI's develop a critical mass of talent and enhance research opportunities for DOD that are uniquely related at these institutions. It is our belief that in developing the nation's first coordinated DOD and Hispanic consortium effort, The UPR and other HSI's with advanced programs will be able to serve as role models and resource centers for the Department, industry, other HSI's, and other minority and majority institutions of higher education.

With the support of the Chairman and members on this Committee, The UPR was successful in securing language within the fiscal year 1996 National Security Appropriations Conference Report that established a precedent-setting collaborative effort between DOD and HSI's. We commend the Committee for recognizing of HSI's for the critical role they can play in assisting DOD in strengthening its research and development activities.

Mr. Chairman, in the months since the HiCREST language was included in the Conference report, which was subsequently signed into law by the President, there has been very little effort by the Department to bring this collaborative to life. It is in this vein that The UPR is again seeking this Committee's assistance. In light of the fact that we are midway through fiscal year 1996, and without evidence that the Department is seeking to develop this initiative this fiscal year, the UPR is requesting that the Committee include language in the fiscal year 1997 Department of Defense appropriations bill that will again call for the establishment of a collaborative between the Department and a HSI consortium that has demonstrated excellence in the science and research fields. Furthermore, we ask that of the funds provided for university research, $2,000,000 be provided to support a HiCREST initiative.

Over the years, this Committee has recognized the unique mission of HSI's, Historically Black Colleges and Universities and other minority institutions. These institutions are doing the best job in the country in terms of preparing the minority scientists, engineers and mathematicians needed to fulfill the defense and workforce challenges already upon us. With the Committee's continued support, The University of Puerto Rico is confident that it will be in a better position to graduate a large number of highly trained Hispanic students with the knowledge and skills necessary to succeed in SEM graduate study, and excel in scientific careers relevant to the DOD mission.

CONCLUSION OF HEARINGS

Senator **STEVENS**. We will mark up the bill tomorrow at 2 p.m. If there is nothing further, the hearing is recessed.

Thank you very much.

[Whereupon, at 3:50 p.m., Tuesday, June 18, the hearings were concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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